

COMMERCIAL CAR JOURNAL

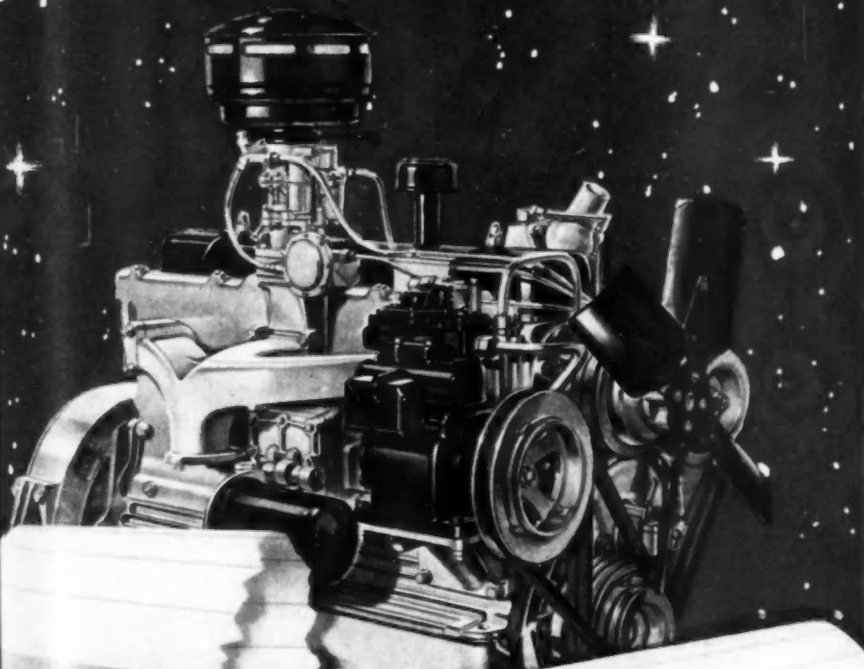
THE MAGAZINE FOR TRUCK AND BUS FLEET OPERATORS

UNIVERSITY
OF MICHIGAN

AUG 18 1954

TRANSPORTATION
LIBRARY

You Want Useable Horsepower



$$HP = \frac{262 \times 3200}{5252}$$

160

$$\begin{aligned} \text{Piston Speed} &= \frac{RPM \times \text{Stroke} \times 2}{12} \\ &= \frac{3200 \times 4\frac{1}{8}}{12} \\ &= 2200 \text{ fpm} \end{aligned}$$

$$\begin{aligned} \text{Air (cu/ft.)} &= \frac{\text{Displacement} \times RPM}{3456} \\ &= \frac{331 \times 3200}{3456} \\ &= 306 \end{aligned}$$

No theoretical rating ever pulled a payload. It's horsepower *at the wheels* that counts—the kind you get at every speed from modern *Gold Comet* engines.

The REO *Gold Comet* is truly modern—modern because it's more efficient—one of the very few engines designed from the ground up since the war period. It produces more power for each pound of engine weight because it is built to operate with less friction, less heat, less vibration, than any other truck engine.

By completely redesigning for modern needs with modern metals, REO engineers developed a years-ahead engine so good, *so right*, that today—with more than 100,000 already piling up operating profits—it still leads the field. Ask any driver or owner.

If you need more power, lower operating costs, and especially lower maintenance cost to meet *your* increasing competitive pressures, you may well have the answer in this amazingly efficient modern REO *Gold Comet* engine.

REO Motors, Inc.
Lansing 20, Mich.

Interested in modern engine trends and developments? Write for our new non-technical booklet, "Horsepower Is Our Business," written by W. M. Walworth, REO's Chief Engineer and recognized engine authority.

REO

GOLD COMET
ENGINES

World's most economical trucks...



**You get more miles per gallon
with efficient POWER-DOME V-8's . . .**

153-h.p. in 2 3/4-ton. 172-h.p. in 3-, 3 1/2-ton!

You cut costs with Power-Dome!

Dodge truck V-8's with dome-shaped combustion chambers develop more energy, wring more power from every drop of fuel! Standard on all 2 3/4-, 3-, and 3 1/2-ton models.



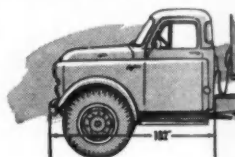
You save more time every mile!

Super-efficient Dodge truck Power-Dome V-8's help you make faster road time! Thrifty sixes with standard twin carburetion, in 2 1/2-, 4-ton Dodge trucks!



You boost payloads and profits!

Conventional Dodge 1 1/2- through 3 1/2-ton tractors are the shortest in their field—102" from bumper to back of cab! You haul longer trailers, bigger loads within legal limits!



DODGE "Job-Rated" TRUCKS

*See your
dependable Dodge
truck dealer
today and...*



*learn why there's
a better deal
for the man at
the wheel!*



th



DE
save
dent
redu
freq



DEPRECI
freedom fr
denting an
boosts res

ALUMINU

• • •

COMMERCIAL

ALUMINUM ALLOY BODIES



the New Way to Deliver
AT LOWER COST...



WEIGHS LESS
usually 1,000 lbs. less,
and sometimes permits
use of lighter chassis.



CORRODES LESS
saves the appalling
repair costs due
to excessive rust and
corrosion.



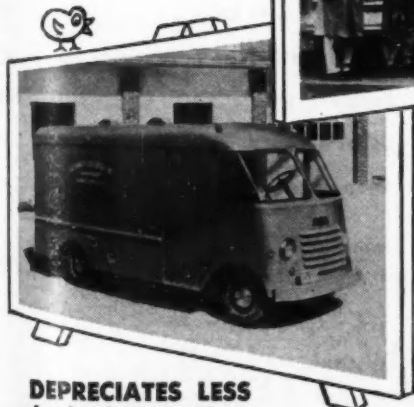
CARRIES MORE
every 1,000 lbs.
saved in body
weight permits
1,000 lbs. more
payload.



DENTS LESS
saves repetitious
denting repairs and
reduces painting
frequency.



LASTS LONGER
outlasts two chassis
(changeover is easy).



DEPRECIATES LESS
freedom from excessive
denting and corrosion
boosts resale values.

You CAN get Olson Kurb-Side Bodies made of thick but light Aluminum Alloys for nothing — through savings.

Even if you could get steel bodies for nothing you could not afford their corrosion, denting and excessive deadweight with its higher costs for gasoline, tires, brakes and clutches, etc.

Ask any Olson user. Ask any truck dealer who is economy-minded. Or, write today for catalogue.

ALUMINUM ALLOY BODIES BY *Grumman* J. B. E. OLSON CORPORATION
1740 BROADWAY, NEW YORK 19, N. Y.

COMMERCIAL CAR

EDITORIAL STAFF

Charles Bartlett Rawson, Editor

Murray K. Simkins.....Managing Editor
Jack Colgan.....Assistant Editor
Ernest S. Forest.....Assistant Editor
Joseph Geschelin.....Detroit Tech. Editor

Leonard Westrate.....Detroit News Editor
R. Raymond Kay.....Pacific Coast Editor
Howard Kohlbrenner.....Art Director
George Baker, Ray M. Stroupe, Neil R. Regeimbal.....Washington News Editors

Marcus Ainsworth.....Statistician
Paul Wooton.....Washington Member
of the Editorial Board

EDITORIAL CONTENTS

Akers' Acres, Fabulous Fleet Headquarters....68

New maintenance center for the fleet's 1200 vehicles provides for orderly traffic flow through shops.

Louisville Buses Stop on Schedule.....72

Supt. of Equipment Torrens Smith tells how his bus fleet obtains safe and sane stopping distances.

Accident Prevention Fund Pays Off.....74

A retail delivery fleet tells how it cut minor accidents, reduced insurance costs, improved driver morale.

Brake Test Data Aids Driver Training.....76

Los Angeles' C.M. Elliott describes his studies of brake lag time and its effect on stopping distance.

College of Furniture Knowledge.....78

Here's how Aero Mayflower covers safe driving, furniture handling and paper work in a five-week training program.

International Harvester Offers New COE's....82

They feature a 78 $\frac{1}{8}$ -in. bumper-to-back-of-cab dimension. Heavier units have new RRD 501, 201-hp engine.

"Stripaway" System Speeds GMC COE Service.84

New features make it possible to lay bare all important above-frame parts and engine accessories in 31 sec.

Trailmobile Announces Custom Design Plan....90

Fleetmen can now select specific features they require in buying trailers under the new CID program.

Uniform Code Changes Affect Brakes.....92

They ask deceleration of 14 ft per sec per sec; would require 43.5 per cent of vehicle weight braking force.

Jet-Type Cleaner Cuts Washing Costs.....96

Atlantic Refining fleet keeps grime off with a Sellers "Hydraulic Jet" that connects to central steam line.

Twin Coach Has 1700-lb Parcel Delivery.....98

Model No. FPE "Fageol Pony Express" offers 144 cu ft of payload space, 1700-lb capacity, measures 156 in. long.

Edwards Announces Trailer Leasing Plan.....138

It offers six-year rental, elimination of obsolescence. Units can be built to customer specifications.

DEPARTMENTS

The Overload	5
At Your Service	9
Up Front with CCJ.....	17
Dates and Doings	22
Laugh It Off	64
Bulletin Board	66
Shop Hints	80

EPA

NBP

COMMERCIAL CAR JOURNAL

with which is combined Operation & Maintenance

Reg. U. S. Pat. Off.

Member C.C.A.

G. C. BUZBY, President and Manager, Automotive Division

E. H. MILLER, Adv. Mgr.

E. W. HEVNER, Cir. Mgr.

C. W. HEVNER, Res. Mgr.

COMMERCIAL CAR JOURNAL is published monthly by Chilton Co., N. W. Cor. Chestnut & 56th Sts., Philadelphia 39, Pa. Subscription price: United States and Possessions, \$3.00 per year; all other countries \$10.00 per year. Single copies 50¢, except Apr. and Nov.—\$1.00. Acceptance under Section 34.04 P. L. & B. authorized.

REGIONAL MANAGERS

HARRY T. LANE, Chicago
CURTIS F. MOSS, Chicago
H. M. WERTZ, Chicago
JACK C. HILDRETH, Cleveland
WILSON HOWE, New York City

E. E. ELDER, Detroit
J. A. LAANSMA, Detroit
RUSSELL W. CASE, JR., Philadelphia
R. J. BIRCH, San Francisco
FRANK W. MCKENZIE, San Francisco
L. H. JACKSON, Los Angeles

OFFICES

Philadelphia 39, Pa.—Chestnut & 56th Sts., Phone Granite 4-5600
New York 17, N. Y.—100 E. 42nd St., Phone Oxford 7-3400
Chicago 1, Ill.—Rm. 916 London Guar. & Accident Bldg., Ph. Franklin 2-4243
Detroit 2, Mich.—1015 Stephenson Bldg., Phone Trinity 5-2090
Cleveland 14, Ohio—1030 National City Bank Bldg., Phone Cherry 1-4188
Washington 4, D. C.—1091 and 1093 National Press Bldg., Phone Sterling 3-1844
San Francisco 4, Cal.—300 Montgomery St., Phone Douglas 2-4393
Los Angeles 5, Cal.—3156 Wilshire Blvd., Phone DUNKIRK 7-2119

COMMERCIAL CAR JOURNAL, August, 1954

Statistician
on Member
itorial Board
ews Editors

AUGUST 1954 VOLUME LXXXVII, NO. 6
Copyright 1954 by Chilton Company (Inc.)

in....90
require in

....92
ould require

....96
Sellers "Hy-

....98
44 cu ft of
long.

....138
ence. Units

Eaton Offers 32,000-lb Tandem.....174

New unit features inter-axle differential with 100 per cent positive differential lock.

Bendix-Westinghouse Has Air Power Steering.176

It uses a double-acting power cylinder activated by a control valve containing a pre-loaded spring.

GMC Offers Power Steering as Option.....178

Saginaw heavy-duty, linkage-booster system can be installed as optional equipment on Model Nos. 100-450.

Industry Tackles LA's Smog.....180

Automobile Manufacturers Assn. opens investigation of exhaust fumes, hopes to avoid hasty and costly muffler legislation.

Reo Announces Optional 9-in. Drop Frame....195

It is especially designed for city delivery units. The company also has added a 6x2 model in the F-50 series.

New Product Descriptions86

Free Publications88

New Truck Registrations102

Truck Specifications105

Fleetman's Library140

Introducing160

Fleet Notes182

Factory Flashes188

August News Roundup.....198



One of the Publications Owned by
CHILTON COMPANY (INC.)

Executive Offices
Chestnut and 56th Streets, Philadelphia 39, Pa., U. S. A.

Officers and Directors

Jos. S. HILDRETH, President

Vice-Presidents

G. C. BUZBY
WILLIAM H. VALLAR, Treasurer
GEORGE T. HOOK
TOM C. CAMPBELL
L. V. ROWLANDS
P. M. FAHRENDORF
EVERIT B. TERHUNE, JR.

HARRY V. DUFFY
JOHN BLAIR MOFFETT, Secretary
MAURICE E. COX
FRANK P. TIGHE
ROBERT E. McKENNA
IRVING E. HAND

Philadelphia
San Francisco

4-5600
7-3400
Franklin 2-4243
5-2090
erry 1-4188
terling 3-1844
2-4393
7-2119

August, 1954

COMMERCIAL CAR JOURNAL, August, 1954

To a fleet maintenance chief
who has to "keep 'em rolling"!



Here's Hygrade's pump with the "never-say-die" diaphragm

Nobody has to tell *you* that it's the diaphragm that makes or breaks a fuel pump. You've seen too many perfectly good pumps fold up after only a few thousand miles because the diaphragm "went".

Here's HYGRADE's solution — the one-piece, non-corrosive *Monoflex* diaphragm that *lasts for the life of the pump*. And it's not just the rugged material in it that makes *Monoflex* the longest-lived diaphragm on the market—it's also the way it's fitted. The diaphragm is so tightly sandwiched between the smooth casting surfaces that not even the *smell* of gas can escape.

Its great diaphragm isn't the only reason for this HYGRADE fuel pump's popularity with fleet men. For instance, the rocker arm is heat-treated for extra strength and minimized wear. And its valve springs are phosphor bronze, oil-treated, remain perfectly elastic.

Write our engineering department for complete details. That's HYGRADE PRODUCTS DIVISION, Standard Motor Products, Inc., 37-18 Northern Boulevard, Long Island City 1, New York

HYGRADE 

Carburetor Kits • Fuel Pumps & Kits • Speedometer Cables & Casings



Up to 47% more tread life. 24% more traction-at regular prices!

SAVE WHEN YOU BUY, SAVE OVER THE ROAD, WITH THE ALL-NEW TRACTION HI-MILER!

SAVE WITH NEW DESIGN! Every part newly designed to lower your costs per mile! For instance—old-style rib-grooves squeeze into damaging points, causing tread cracks. Goodyear's *newly designed* rib-grooves squeeze into harmless ovals, ending this cause of loss!

SAVE WITH NEW RUBBER COMPOUNDS! New, *finer* carbon black, world's best rubber-toughening agent, provides most rugged, abrasive-resistant, cool-running tread-stock ever offered!

SAVE WITH NEW, FLATTER, 5-RIB STOP-NOTCH TREAD! More working rubber on the road for sure traction, slower, more even wear. Newly designed Stop-Notches compress into "teeth"

as they meet road, give new, nonskid safety!

SAVE WITH NEW, TRIPLE-TEMPERED (3-T) CORD! Made possible by Goodyear's new, 6-story, multimillion-dollar 3-T processors! This exclusive process, involving Tension, Temperature and Time, controls NYLON or RAYON cord stretch—gives best combination of lasting strength, heat-resistance and bruise-resistance, cuts tire failures to new LOWS, permits more safe recaps!

Despite all these and still other advancements — the all-new TRACTION HI-MILER costs you *not one penny more* than regular price! See it at your helpful Goodyear dealer's.

Goodyear, Truck Tire Dept.,
Akron 16, Ohio

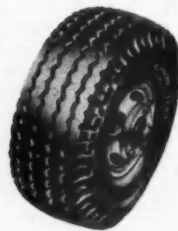


**FIRST ALL-NEW
TRUCK TIRE IN YEARS!**
**3-T NYLON
or
3-T RAYON**

Hi-Miler, Xtra Tred — T. M.'s
The Goodyear Tire & Rubber Company, Akron, Ohio

GOOD YEAR

MORE TONS ARE HAULED ON GOODYEAR TRUCK TIRES THAN ON ANY OTHER KIND
We think you'll like THE GOODYEAR TELEVISION PLAYHOUSE—every other Sunday—NBC TV Network



**SAVE ON HEAVY TREAD
TIRES, TOO!**

**NEW
XTRA TRED**

Outwears, outperforms
any other heavy tread
tire on the highway!

COMMERCIAL CAR JOURNAL, August, 1954

The OVERLOAD

E D I T O R I A L C O M M E N T

Uneasy Street, U.S.A.

WE LISTENED intently, middle of last month, as Vice-President Nixon delivered "the President's notes" to the Governors assembled at Bolton Landing, N. Y. Anyone hearing the speech could not help but be impressed with the sincerity with which the \$50 billion ten-year highway plan was presented. Most everybody is in favor of adequate roads and hence delighted by the fact the President has so actively recognized the problem.

But in both Bolton Landing and Washington comments on the speech were immediate, violent and in some cases directly opposing. First to grab the floor was Pennsylvania's Governor Fine who said, in effect, that he wanted no part of stepped up Federal Aid and that now was the time for the Federal Government to get out of the fuel and oil tax business once and for all. Others, more favorably inclined toward the idea, joined the fray and, as the tumult and the shouting died, the convention succeeded in considerably modifying these demands; decided that in many states Federal Aid was important.

Never referred to directly was an item which we suggest may have had some of the Governors a bit hot under the collar. That was the recently introduced Oakman Bill (see page 18) which, if passed, would cut Federal Aid from any state with a third structure (i.e. ton mile, axle mile, etc.) tax on highway transportation.

We know of not a single truck operator who wouldn't jump at the chance of doing anything he could to eliminate the nightmare of reciprocity bottlenecks and retaliatory taxes which have be-

come the current national pastime—particularly as a result of ton-mile and axle-mile taxation. That's why many highway user groups, including ATA's executive committee, have jumped on the Oakman bandwagon.

On the other hand such support could be ill-timed at a time when the Governors and the Federal Government are trying to work out the "co-operative alliance" suggested in the Eisenhower-Nixon speech. The Oakman threat could well inspire strong states-right Governors to lash out all the harder with their third-structure tax whips. For if they can build their highway resources to a point where they can tell Uncle Sam to stuff it, they may well do just that.

All of which leaves the fleetman driving down uneasy street. If the Oakman bill works (and it doesn't stand a Chinaman's chance of passing this year) all would be fine. But if it backfires, it would leave the truckers where they have so often been—holding the bag and paying the bill. Only this time they might find themselves still paying a Federal tax without benefit of Federal Aid.

The only conclusion possible at the moment is to suggest that we all keep an eye on the next moves by (1) the Governors who want to build their own highways; (2) the Federal Administration that wants a \$5 billion-a-year highway program *on top of* present expenditures of something more than \$6 billion; and (3) the Congress that *might*, through the Oakman bill, put its own oar in somewhat troubled waters with highly debatable results.

Bart Rawson
Editor

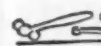
GET MORE MILES BETWEEN ENGINE OVERHAULS



TEXACO

COMMERCIAL CAR JOURNAL, August, 1954

CC



TA
pr
exce
ing
when
back
belt
for t
ings.

A
grea
stre
is n
L&R
old,
inter
Th
able
ing
tion
char
by
lubr
cage
nece
the
clea

TH
t
and
ting
cur
3 1/2
is a
ing
slot

COMMERC



At Your Service

TIMELY NOTES ON MAINTENANCE AND OPERATION

by MURRAY SIMKINS Managing Editor

Water Pump Installation

TAKE care in installing water pumps. Many premature failures are a direct result of excessive or uneven tightening of the mounting studs. Leakage is encountered sometimes when the gasket is doubled up between the back plate and the pump body. Excessive fan belt tension is another cause of early failure, for the tension places undue loads on the bearings. Bent pulleys will cause the same trouble.

New IHC Rear Axle

A NEW designed rear axle incorporating a larger diameter ring gear which provides greater reserve torque capacity, greater tooth strength and longer ring gear and pinion life is now in production for the L&R-190 and L&R-200 series. It is interchangeable with the old, also, the differential carrier assembly is interchangeable with the old.

The 18,800 gear and pinion is interchangeable with the old, providing a new pinion bearing cage and seal is used and a slight modification is made in the old carrier. The lubricant channel in the old carrier must be enlarged by removing sufficient material to match the lubricant channel in the new pinion bearing cage. In addition, in some instances it may be necessary to remove sufficient material from the differential carrier to provide running clearance for the increased diameter ring gear.

1954 Chevrolet Generator

THE new lower cut-in generator and regulator used on 1954 Chevrolet passenger cars and commercial trucks requires the same settings as the earlier models except that the current regulators are set at 40 amperes. The $3\frac{1}{2}$ turn armature used in the new generator is actually an alternate-wound armature having alternate 3 and 4 turn windings in adjacent slots.

Alternate-wound armatures show a regular pattern of variation in readings when tested bar-to-bar on a growler. The pattern consists of two low readings, two high readings and so on around the commutator.

For example, a set of typical readings on a certain growler might be 42-42-45-45-42-42-45-45, etc. A damaged winding will cause a wide deviation from regular pattern which can be easily detected. The regular variation in readings on the alternate-wound armature is normal for this design and does not indicate a defect.

Commutator bars on alternate-wound armatures tend to blacken unevenly after short usage. This condition is caused by small differences in voltage between unequal windings. It does not affect performance and does not indicate a defect. The condition will be noted only on new or newly cleaned commutators. After longer usage the bars will become uniformly dark in the normal manner—Sun Electric Corp.

Fluoridated Water OK for Radiators

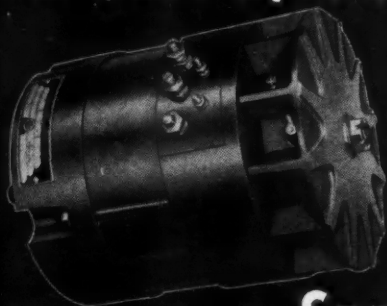
FLUORIDATED water, which many cities are using because it was found to improve dental health, is harmless to automobile radiators. A recent test by Ford Motor Co. showed no pitting or corrosion of radiator materials despite the fact that they were immersed in sodium fluoride solutions 4000 times stronger than those used in public water supplies to prevent tooth decay.

Field Observation of Oil Condition

VISCOSITY—The viscosity or body of an oil is its most important single physical characteristic. Useful observations of oil viscosity can be easily made in the field since the primary requirement is to find out if it has

(TURN TO NEXT PAGE, PLEASE)

FOR MORE RUNS FEWER LAYUPS



Specify **Leece-Neville** Alternators

Over 7 years of fleet performance has proved the unmatched reliability of L-N Alternators. Many of them have run 500,000 miles and more with only routine maintenance. With 25 to 40 amps at idle and high output at all speeds, L-N Alternators carry the entire electrical load, leaving batteries for starting only. Think what this freedom from electrical breakdown can mean for your fleet! There are 6-volt L-N Alternator Systems of 50 and 95 amps capacities; 50 to 150 amps for 12 volts. Be sure to specify L-N.

Out front over 43 years

Since 1909 Leece-Neville has been in the forefront of invention, development and perfection of automotive electric equipment. The first generators and cranking motors used as standard equipment on automobiles were built by Leece-Neville, who also brought out the first third-brush generator. Today, with outstanding engineering and production facilities, L-N is the acknowledged leader in design and manufacture of special and heavy-duty electric units. The Leece-Neville Company, Cleveland 14, Ohio.

**YOU CAN
RELY ON**

Leece-Neville

ALTERNATOR SYSTEMS • GENERATORS
CRANKING MOTORS • REGULATORS
SWITCHES • SMALL MOTORS



At Your Service

Continued from Page 9

changed significantly. It is generally agreed that, if the engine manufacturer specifies and the oil supplier recommends a particular body or viscosity of oil for a given engine, the best results should be expected when this body is used. If the viscosity becomes too low because of dilution with fuel oil, cylinders and piston rings wear rapidly, bearings may fail, and severe damage can occur. If, on the other hand, the viscosity increases due to sooty contamination or the presence of partly oxidized hydrocarbons from the fuel or the lubricating oil, the thickened oil will not circulate freely, interior moving parts will no longer be cooled properly and the loss of power due to internal friction in the oil itself will be increased. In any case, neither a large increase in viscosity nor a large decrease in viscosity is desirable.

Useful portable instruments for measuring viscosity are obtainable at reasonable prices and are simple to use.

Another quick and practical method to check for fuel dilution is to keep a series of several tall form four-ounce sample bottles containing fresh oil to which varying amounts of diesel fuel have been added. A sample of oil from the engine in a similar bottle permitted to stand overnight with the other pre-diluted samples will have the same temperature as the reference samples. Then merely inverting the used sample and observing the speed with which the entrapped air bubble rises through the oil, and comparing this with the reference samples, will quickly and adequately tell whether the used oil is above or below the established dilution limits. The rising air bubbles serve as crude but effective viscosity comparisons.

There are a number of observations which can be made by the operating engineer that have a bearing upon the oil condition. While these are usually not conclusive and may not lead directly to determining when normal oil changes should be made, they do provide indicators. The external evidences of engine condition are ordinarily quite plain, and operating engineers are usually able to draw the necessary inferences.

If the crankcase oil of a trunk-piston engine
(TURN TO PAGE 12, PLEASE)

You get
replac
Battery M
the major
ulation—t
check of t

At each v
and quick
and the fi
—one for
colored 'a
above), y
A mark o

**FREE
HO**

COMMERCIAL



"LIFE LINE" for Fleet Batteries

**money saver
for Fleet Operators**

You get continuous help in keeping battery life up, replacement costs down, when you use Goodyear's Battery Maintenance Plan. This easy-to-follow plan spots the major cause of battery failure—improper voltage regulation—the *only* way it can be done—with a constant check of the state of charge of the battery!

At each watering, batteries are checked with the easily and quickly read Goodyear All-Purpose Tester (above) and the findings recorded on a Fleet Battery Record Card—one for each battery. When the findings go in the green-colored "safety zone" (the stripe on the card shown above), your maintenance man knows voltage is right. A mark outside warns him voltage is too high or too low.

A voltage regulator set too high can shorten the life of the battery and every replacement item in the electrical system. Too low a setting causes frequent battery discharges, recharges and premature failure from sulphation.

When you use this "life line" for fleet batteries, you get longer battery life, longer life of every electrical replacement unit and less road delays. And you save even more when you use it with Goodyear's Heavy Duty Truck and Bus or Diesel-type batteries. For full details, send for the new booklet called the Goodyear Fleet Maintenance Manual. Mail the coupon today. Goodyear, Battery Department, Akron 16, Ohio.

GOODYEAR

THE GREATEST NAME IN RUBBER

**FREE BOOKLET TELLS
HOW TO PROLONG
BATTERY LIFE**

THE GOODYEAR TIRE & RUBBER COMPANY, INC.
Dept. T-7912, Akron 16, Ohio

Please send me a copy of the Goodyear Fleet Battery Maintenance Manual.

Name.....

Company.....

Street Address.....

City.....Zone.....State.....

Number of Trucks in Fleet.....

We think you'll like THE GOODYEAR TELEVISION PLAYHOUSE—every other Sunday—NBC TV Network



At Your Service

Continued from Page 10

has become very seriously contaminated and the condition has not been otherwise observed, oil control rings may have become plugged with deposit. This can cause sticking of compression rings shortly thereafter because large quantities of heavily contaminated oil are reaching these rings. The serious blowby which may then result, may cause an engine to entirely lose its load carrying ability.

A more apparent evidence of mis-functioning is usually the appearance of smoke in the exhaust. This can be caused by loss of compression or the presence of excessive volumes of lubricating oil reaching the combustion chamber, but is more usually a sign of over-loading or of the need for attention to the injection system.

The problem of fuel dilution is always present to some degree with diesel engines. One clue is that the crankcase make-up requirements will become unnaturally low. This, instead of being the basis for a feeling of satisfaction, should be recognized immediately as a very dangerous situation. Fuel oil reaching the crankcase oil charge is counterbalancing the normal oil consumption.

The appearance of sludgy deposits at any point are signals that the crankcase oil is contaminated in one way or another, and either an oil change is indicated or the conditions causing the contamination should be immediately corrected.

While the operating sound of an engine is important, this is seldom a direct clue to the condition of the lubricating oil. Almost always a change in the normal sound of an engine indicates some change in the operating conditions and may be the result of parts wear or the breakage of piston rings or an increase in the clearance of bearings or a shift in the cooling-water temperatures or any one of a number of variables.

The above material was excerpted from a paper by Lewis F. Moody, Jr., and John C. Gibb, of Socony-Vacuum Oil Co., at the International Meeting of the American Society of Mechanical Engineers, held recently in Mexico.

(TURN TO PAGE 14, PLEASE)

NOW! Get more work from your MEDIUM TRUCKS!

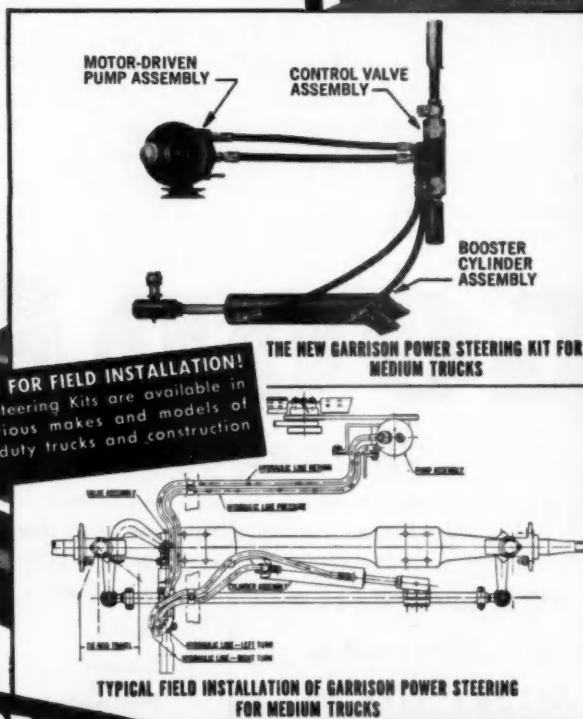
Garrison's new Power Steering Kits are easy to install; provide finger tip steering!

Garrison Power Steering will speed truck pick-ups and deliveries! Even under a full load, trucks can be maneuvered into cramped quarters quickly and easily with the help of Garrison Hydraulic Steering.

These hydraulic boosters do 80% of the steering work, giving the driver complete control with only light pressure on the steering wheel. The power cylinder also acts as a shock absorber. This feature prevents jarring road jolts from ruts or rough terrain from being transmitted to the steering mechanism, increasing operator safety and equipment life.

Get full information from your distributor today.

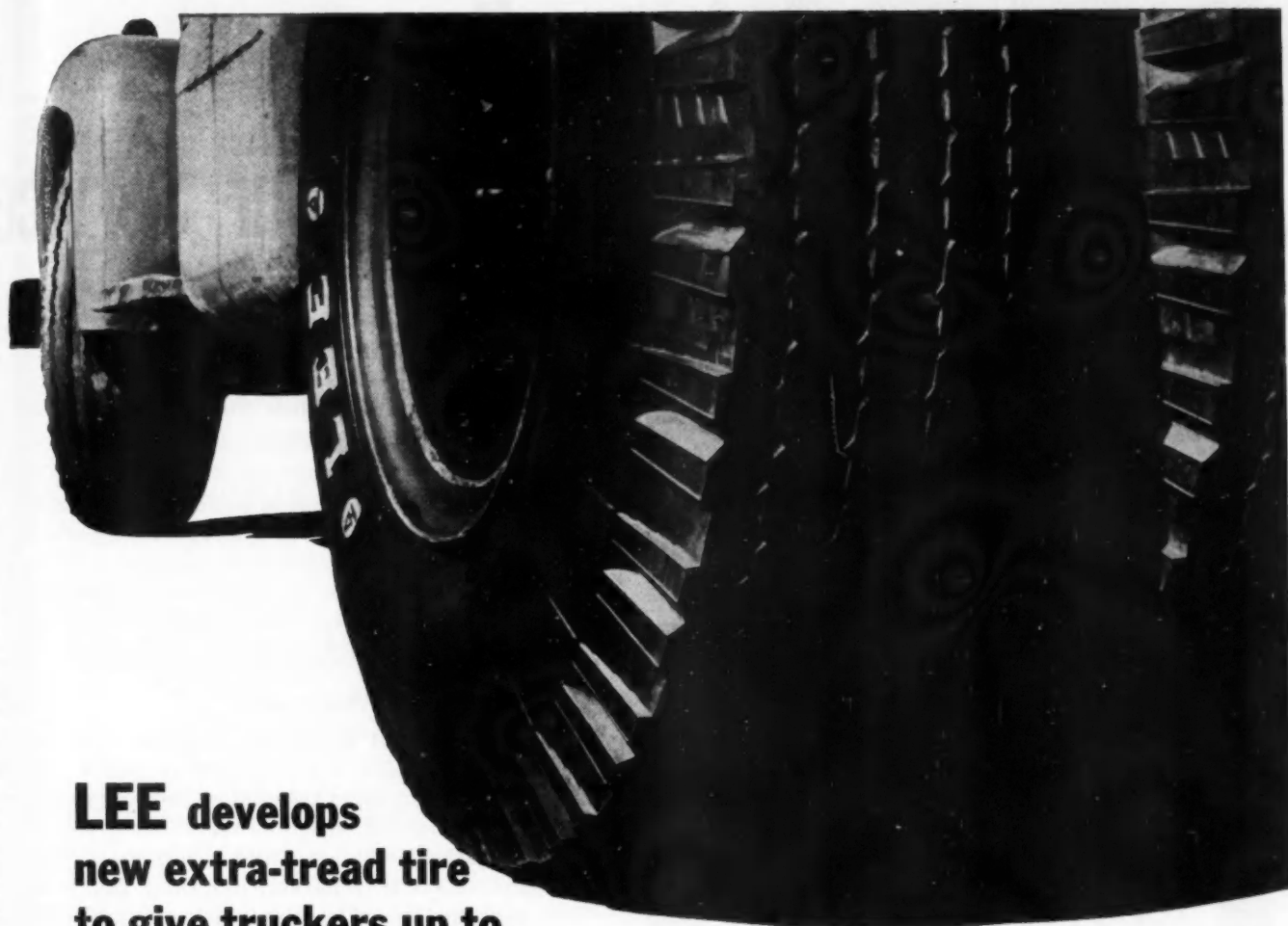
NOW AVAILABLE FOR FIELD INSTALLATION!
Garrison Power Steering Kits are available in kit form for various makes and models of medium, heavy-duty trucks and construction equipment.



GARRISON
Manufacturing Co.

1500 SO. SANTA FE AVENUE, LOS ANGELES 21, CALIFORNIA

COMMERCIAL CAR JOURNAL, August, 1954



**LEE develops
new extra-tread tire
to give truckers up to**

50% More Original Miles

The LEE SUPER DE LUXE EXTRA TREAD 5-RIB

THIS NEW LEE TIRE . . . suitable for any wheel position on either truck or trailer . . . gives up to 50% more original mileage by actual test, yet costs only about 12½% more than a standard highway tire.

IMPROVED TREAD. Called the Maximile Tread, it is 44% deeper on the average, and has a much flatter contour. This puts more rubber in contact with the road—distributes the load more efficiently to increase tire life. Buttresses in the grooves give tread members extra support and develop a caterpillarlike action for throwing off small stones. Specially designed tread grooves prevent small cuts from growing into long tread cracks. Deep-cut shoulder design aids in controlling and throwing off heat developed in the shoulder area. Shoulder design is engineered to prevent radial cracks.

FLEXLOK IMPROVES THE CARCASS. Flexlok is an exclusive Lee development. This super-efficient cord-coating formula increases adhesion by 300%, makes cord separation from the rubber bond practically impossible—resists the effect of continuous flexing better than any previously developed adhesive, gives longer cord life. Flexlok reduces internal heat and is highly resistant to heat developed by normal flexing action of the tire.

Tire growth is held to a minimum because of equalized tension on cords.

LUBRI-CUSHIONS LOWER COST-PER-MILE. Lubri-Cushions—special thin sheets of rubber between the plies—give longer carcass life by lubricating the plies and reducing internal friction, with its destructive heat. They protect against bruise breaks, because each Lubri-Cushion helps equalize flexing strain over the entire road impact area. They maintain carcass strength because they keep plies from separating. All this adds up to a stronger carcass that—combined with the better tread—increases original mileage and recap miles, too.



SEND COUPON FOR ADDITIONAL INFORMATION

LEE RUBBER & TIRE CORPORATION
Conschocken, Pa.

2-H

Please mail your new folder describing the many cost-cutting and performance advantages of the new Lee Super De Luxe Extra Tread 5-Rib Truck Tire.

Company.....

My name.....

Street.....

City.....Zone.....State.....



fleet owner does motor cleaning job in 1/6 the former time

A low concentration of Oakite Composition No. 93, the new, modern steam-detergent cleanser, and 50 pounds pressure through their Oakite Model 384 steam-detergent gun is all this fleet owner needs. They get a 100% cleaning job in only 10 minutes, where it previously took an hour.

Hard baked-on deposits of grease and dirt literally roll off when this cleaner and gun team up for them... and there are no disagreeable odors or dangerous fumes to make the job unpleasant; no biting spray to make the job unsafe. Here's the newest, most modern detergent you can get for this type of cleaning. Ask your Oakite Technical Service Representative to give you a demonstration. For more information, request FREE Special Technical Report B3056. Write: Oakite Products, Inc., 30 Rector Street, New York 6, N. Y.

Technical Service Representatives in
Principal Cities of U. S. and Canada

SPECIALIZED INDUSTRIAL CLEANING
OAKITE
MATERIALS • METHODS • SERVICE



At Your Service

Continued from Page 12

Valve Stem Umbrellas Save Sparkplugs

USE of valve stem deflectors will eliminate some of the major causes of spark plug fouling in overhead valve engines, and might be considered where this problem is acute. Installed on valve stems these molded umbrellas made from Jucar, a Goodrich development, not only curtail plug fouling but also reduce oil consumption and carbon formation.

What's new?

—International Harvester Company has an experimental electric generating system which will be used on farm tractors as well as motor trucks to provide a source of electric power for various operations. Called "Electrall," this compact electric generator provides 220 volt, three phase, 60 cycle alternating current—120 volt, single phase current for driving power tools or lights—220 volts, single phase circuits.

—A new factory installed overdrive attachment for five International light-duty trucks in the R-100 and R-110 series. Gear ratio is .7 to 1, reducing the engine speed by approximately 30% in cruising range. It cuts in at any road speed in excess of 30 mph. Up shift from third speed to overdrive is actuated by split second release of the accelerator. Down-shift is automatic when road speed falls to around 20 mph.

—Phillips Petroleum Co. has developed and will soon market an all-season motor oil, Specification MIL 0-2104 (Supplement I level). It is called "Trop-Artic."

—Dunlop Tire and Rubber Corp. has a new tire said to increase mileage due to improved cooling and to a new carbon black used in its composition. The tread has five continuous flexible rolling ribs for greater protection against wiping, cupping and shoulder pounding. Available in 7.50-20 and larger.

—A new type spark plug employing a radical surface-gap principle, developed by U. S. Igniter Corp., Philadelphia. This plug operates in all heat ranges, is self-cleaning, operates at reduced voltages and withstands higher compressions, according to the company. As erosion is negligible, clearances can be maintained without need of resetting, the company reports.

vice

Page 12

lugs

minate
k plug
might
acute.
mbrel-
pment,
reduce

has an
which
motor
power
," this
0 volt,
t—120
power
rcuits.
attach-
trucks
atio is
approxi-
in at
p shift
ted by
Down-
alls to

ed and
Speci-
el). It

a new
proved
l in its
inuous
tection
pound-

radical
U. S.
operates
ates at
r com-
As ero-
ntained
eports.

August, 1954

ce

12

ate
lug
ght
ate.
rel-
ent,
ace

an
ch
cor
ver
his
olt,
20
ver
ts.
ch-
cks
is
xi-
at
ift
by
yn-
to

nd
ci-
It

ew
ved
its
ous
on
nd-

cal
S.
tes
at
om-
ro-
ed
rts.

at, 195



FLEET HIGH

COMMERCIAL CA



UP FRONT

WITH CCJ

FLEET HIGHLIGHTS OF THE MONTH AS REPORTED BY COMMERCIAL CAR JOURNAL

MR. EXECUTIVE

President Eisenhower has appointed a cabinet committee to study transportation policy and administrative organization. Headed by Secretary of Commerce Weeks, it includes Secretary of Defense Wilson and Defense Mobilization Director Fleming. Postmaster General Summerfield, Treasury and Agriculture Secretaries Humphrey and Benson and Budget Director Hughes will participate on matters affecting their departments. Says the Presidential memo appointing the committee, such a review is needed to obtain consistency in policy and regulatory administration of the various forms of transportation. Deadline for the committee's report is Dec. 1 this year.

TRUCK FLEETS

are having their second best year concludes a just-finished study of transportation volume during the first half of 1954. Also says the study, made by the U. S. Chamber of Commerce, railroads are not doing so well. Their net operating revenues are down about 30 per cent compared to 1953. By mid-year total employment reached 62.1 million with the rate of insured unemployed down to 5.2 per cent of covered employment as compared to 5.7 per cent a month earlier. There were cautious predictions that the business curve would swing measureably upward by fall sparked by new construction, running—for the first six months—\$300 million above 1953's all-time high.

RECIPROCITY AGREEMENTS

must be worked out by "uniform legislation, interstate compact, or otherwise" to provide a cooperative method of taxation of interstate trucks that also preserves the right of each state to levy its own taxes to meet its highway finance needs decided the governors of the various states at their annual conference held the middle of last month. They asked that committee study the problem, recommend a unified program of action "for all states" before the various state legislatures meet for their 1955 sessions. For most states, this means before January. (Additional details on the meeting appear on page 201, this issue.)

PIGGY-BACK

service expanded last month when the ICC reversed an earlier decision (July, page 17) and permitted the railroads to go ahead with hauling their own or leased trailers at motor carrier rates. The action followed receipt of a letter from Undersecretary of Commerce for Transportation Robert B. Murray, Jr., asking that the railroads be "encouraged" in their "piggy-back" experiments. (A resume of ICC's June 28 "piggy-back" hearings appear on page 198, this issue.)

DETROIT DISPATCH

STIFFER BRAKE STANDARDS were included in changes made in the Uniform Code at last month's meeting of the National Committee on Uniform Traffic Laws and Ordinances. Fleetmen should watch for possible adoption of all or part of the proposals by state legislatures during their 1955 sessions. Analysis of the new requirements begins on page 92, this issue.

TIRE PRESSURES ARE interesting the Bureau of Public Roads. It has asked the state to take inflation readings on heavily loaded equipment at their principal weighing stations.

STANDARD DIMENSIONS FOR tractor-trailer interchangeability (June, page 18) are still being held for final OK. Plans are to include a conversion table to fit existing equipment to the

new standards. An emblem has been designed to go on all equipment meeting the standard coupling requirement.

LIGHTING STANDARDS AS agreed to by the Special Committee on Trucking Lighting of the Northeastern Conference Committee on Interstate Cooperation include: (1) red to the rear, amber for side clearance, (2) midsection marker light for vehicles over 30 ft long, (3) two tail lamps, two stop lights, two clearance lights on each side, one bar light fixture on front and rear, one plate marker light, (4) lights to be placed so as to outline extremes of vehicle.

TRUCKS FOR MAIL ARE increasing. Latest move being tested by the Post Office Dept. is use of light trucks—some with plastic bodies—by a two-man team for local mail delivery. (For

one version see page 92, haul field, bulk mail T

DODGE NO engine in it has a sing hemispheric

HENNEY HA 18), will c Mast - Foot Truck from continue F may produ those used l

JOSEPH M elected to th directors. H eral Budget

WASHINGTON RUNAROUND

MORE HIGHWAYS SEEMS to be a major aim of the Eisenhower Administration. In addition to the 10-year, \$50 billion program suggested to the governors of the 48 states by the President (see page 201, this issue), Commerce Secretary Weeks has announced apportionment of \$875 million the recently passed record federal aid for highways (May, page 17), six months ahead of the deadline set by Congress. He estimates that an added \$100 million in highway work will be contracted for by Sept. 30.

NO FEDERAL AID FOR states with weight-distances taxes says a bill, HR 9695, introduced into Congress last month by Representative Oakman of Michigan. Its purpose led Representative Ayres of Ohio to offer to withdraw his as yet unacted upon resolution calling for investigation of such taxes. The bill was not expected to come up for vote before Congress adjourns. For comment on its impact on highway transportation, see page 5, this issue.

OTHER BILLS AFFECTING motor carriers still pending in Congress include: (1) S 904—that stops the government

from obtaining below-tariff rates on household goods movements for civilian employees and military personnel—has Senate Interstate Commerce Committee approval; (2) the "Quick Rate Increase" bill and HR 3203 to permit trip leasing were still in Senate Committee the middle of last month; (3) HR 9735, requiring motor carriers to establish through routes and joint rates, and S 3707, providing civil liability for violations of the ICC Act by motor carriers—both just introduced in mid-July—might be "railroaded" through in the rush to adjourn.

ICC REORGANIZATION HAS now reached the point where possible reassignment of the functions of the Bureau of Motor Carriers is being considered. It is reported that BMC's Safety Section may be moved to the Bureau of Safety and Service, and that BMC's Insurance Section to either the Bureau of Finance or the Bureau of Inquiry and Compliance. This last Bureau was set up under the reorganization combining the old Bureau of Inquiry and the Law and Enforcement Section of the old Bureau of Law. The new bureau has a Motor Carrier Enforcement Section.

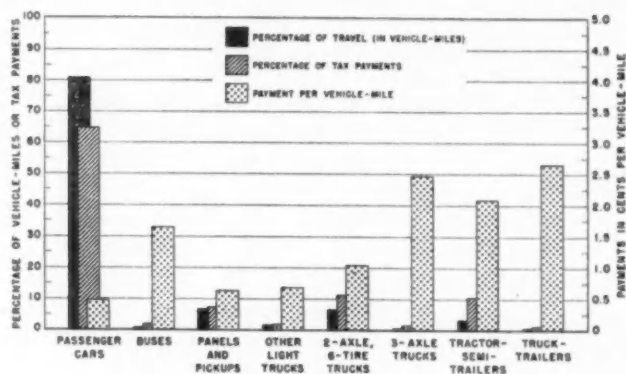
NET INCOM property m \$64.2 millio 1952, accor Transport 1953 operat was 96.01 a

ICC CHAIR is Commissi ing Colone Clements h ate Intersto

TRAILER S trailers alon cost \$8.5 m originally e McLean Tru gest oppon before the 19) was As Assistant V representing roads. He s business aw to "serious stability." East-South posed of 23 ber of indiv

TRUCK TAX FACTS

Trucks Pay Big Share of Road Taxes



The above chart, from a recent state highway-user tax study by the Bureau of Public Roads, shows that medium and heavy trucks, and buses are paying twice to five times more state highway-user taxes per vehicle mile than are passenger cars.

one version of these special vehicles, see page 98, this issue.) In the long haul field, at mid-year there were 500 bulk mail T-routes in operation.

DODGE NOW OFFERS a 145 hp, V-8 engine in its 1/2, 3/4 and 1 ton lines: It has a single rocker shaft, modified hemispherical combustion chamber.

HENNEY HAS bought Reo (May, page 18), will continue truck production. Mast - Foos Co. has bought Federal Truck from Federal-Fawick Corp., will continue Federal parts and service, may produce special trucks such as those used by utilities.

JOSEPH M. DODGE HAS been re-elected to the Chrysler Corp. board of directors. He resigned in April as Federal Budget Director.

NET INCOME OF 1982. Class I intercity property motor carriers for 1953 was \$64.2 million, down \$4.4 million from 1952, according to ICC's Bureau of Transport Economics and Statistics. 1953 operating ratio for these carriers was 96.01 as compared to 95.5 for 1952.

ICC CHAIRMAN FOR the coming year is Commissioner R. F. Mitchell, succeeding Colonel J. M. Johnson. Senator Clements has been named to the Senate Interstate Commerce Committee.

TRAILER SHIPS for hauling highway trailers along the Atlantic Coast will cost \$8.5 million each instead of the originally estimated \$6 1/2 million, said McLean Trucking Co. last month. Biggest opponent to the plan appearing before the ICC last month (July, page 19) was Assn. of American Railroads Assistant Vice President G. E. Getty representing eastern and southern railroads. He said it would take sufficient business away from the railroads so as to "seriously threaten their financial stability." Also heard from was the East-South Trucking committee, composed of 23 trucking firms, and a number of individual motor carriers.

IN THIS ISSUE . . .

FLEET FACILITIES Editor Bart Rawson reports on a tour of Akers Motor Lines' maintenance shops. He says the layout has ideas for all types of carriers, large or small, private or for-hire . . . page 68.

BRAKES Louisville Bus Supt. of Equipment Torrens Smith tells how his fleet obtains safe and sane stopping distances . . . page 72. Also, here is how C. M. Elliott, City of Los Angeles Dept. of Water and Power, studies brake lag time, uses the information to train drivers . . . page 76.

SAFETY A retail delivery fleet shows how to cut minor accidents, reduce insurance costs, improve driver morale with an accident prevention fund . . . page 74.

TRAINING C. W. Hulett, Aero Mayflower Transit Co., describes the firm's five-week, intensive course in safe driving, furniture handling, paper work . . . page 78.

EQUIPMENT International Harvester offers 12 new, 78 1/2-in. bumper-to-back-of-cab COE trucks . . . page 82. GMC's COE "Stripaway" system makes it possible to lay bare, parts and engine accessories in 31 sec . . . page 84. Details on Trailmobile's new CID program, permitting fleetmen to select specific features when buying trailers . . . page 90.

INDUSTRY NEWS The Governors Conference and ICC "piggy-back" hearings are summarized in the August News Roundup . . . page 198.

The Road Ahead



AASHO ROAD TEST PLANS MOVED ahead last month when a plan for financing the project was approved by the Executive Committee of the American Assn. of State Highway Officials in cooperation with the Bureau of Public Roads. This test, to be held on a to-be-constructed section of U. S. Route 6 at Starved Rock, Ill. (near La Salle), seeks correlation between the added cost of building heavier highways and the point of diminishing returns in operation of heavier trucks. Other plans for the test-equipment, fuel, testing equipment, procedures, etc.—have been almost complete for some time now, and the BPR says the test will be run if a sufficient number of the states support it.

ONE MILLION TRAILERS IN use by 1960, predicted Fruehauf Co. President Roy Fruehauf at a recent San Francisco, Cal., meeting of investment bankers. This is double the number of 5-ton or over trailers in use at present sets for the next five years a production goal of 100,000 trailers per year in addition to replacement. Total 1953 trailer production reached 97,000 compared to 58,000 in 1952.

TRUCK ACCIDENTS ARE decreasing says the first quarter report on accidents (resulting in death, injury or property damage of \$100 or more) involving ICC regulated motor carriers. Total accidents—truck, bus and truck-bus—were 7737, down from 8705 in first quarter 1953's. Truck accidents alone were 6812 compared to 1953's 7804, but bus accidents for the first quarter this year reached 914 as against last year's 888. In all classifications the first quarter 1954 truck record bettered last year's—fatal accidents down 24 per cent, injury accidents down 12 per cent, property damage accidents down 12 per cent, fatalities down 16 per cent, injuries down 15 per cent, amount of property damage down 5 per cent.

RAILROADS ARE after frozen food traffic, are using mechanically refrigerated cars to get more. Operating cost to haul frozen strawberries from California to Chicago in a regular bunker-iced reefer car is about \$164. With mechanical refrigeration, it comes to about \$75. Elimination of stops for icing and faster pre-cooling of mechanical reefers speeds the rails service, too. Biggest drawback to this new truck-competitive facility is the high initial cost, about 30 per cent higher than an ice bunker reefer car.

AUTOMOBILE MANUFACTURERS ASSN. HAS given \$50,000 to help find a cure for Los Angeles' smog problem. Hope is to avoid hasty enactment of legislation requiring expensive muffler equipment if it isn't necessary. (For further details, see page 180, this issue.)

MAY PRODUCTION DATA, as tabulated below, is about two months behind unofficial estimates, does not as yet reflect the slight upward trend forecast at mid-year.

In thousands of units, except bus sales are in actual numbers	New Truck Registrations		Truck Factory Sales—Domestic		Truck Trailer Shipments		Bus Factory Sales—Domestic		Truck and Bus Tires				
									Replacement Shipments		Original Equip. Shipments		Inventory End of May
	May	5 Months	May	5 Months	May	5 Months	May	5 Months	May	5 Months	May	5 Months	
1954	78.2	347.7	73.7	394.3	4.5	22.8	250	1567	612.4	2887.4	324.2	1677.1	2928.3
1953	86.4	398.3	82.4	503.4	9.4	35.5	339	1076	788.0	3941.4	378.0	2356.1	3317.8

Handwritten scribbles and marks at the top left of the page.



AUTOCAR
Trailing
brakes.



AUTOCAR
Trailing
brakes.

use

TR

Co

For
dr
costs
uniqu
moun
aligne

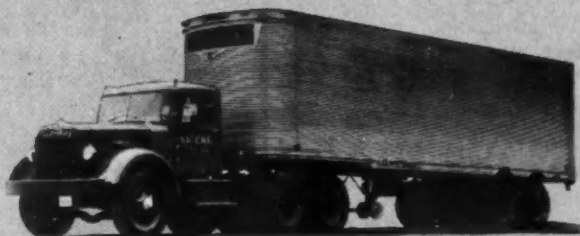
TRUCKTOR D



COMMERCIAL



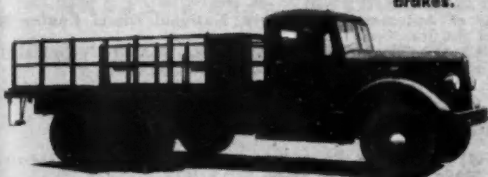
AUTOCAR MODEL C-7062 with Trucktor Model HR Trailing Axle, 10.00 x 20 tires, mechanical air brakes.



AUTOCAR MODEL C-70 with Trucktor Model HLR Trailing Axle, 10.00 x 20 tires, mechanical air brakes.



AUTOCAR MODEL DC-200 with Trucktor Model HR Trailing Axle, 11.00 x 20 tires, mechanical air brakes.



AUTOCAR MODEL C-50 with Trucktor Model HLR Trailing Axle, 10.00 x 20 tires, mechanical air brakes.



AUTOCAR MODEL U-7062 with Trucktor Model HR Trailing Axle, 10.00 x 20 tires, mechanical air brakes.

To increase payloads,
many Autocar owners
use **Trucktor**
TRAILING AXLES

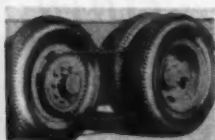


Convert Present Trucks . . . New Trucks

For the smoothest ride . . . best protection for driver, truck and cargo . . . low maintenance costs and long service life . . . get *Trucktor's* unique "Truck-Mated" Trailing Axle. A rubber-mounted "yoke" tows the axle—keeps wheels aligned and on the ground. The "Chain-and-

Sprocket Load Divider" provides maximum flexibility. Full-floating springs, rubber-mounted at the axle, carry *only* the load—take no brake reaction. Six-point frame support protects the frame . . . reduces side sway . . . supports the frame *behind* the last axle.

TRUCKTOR *Detachable* Chain-and-Sprocket 4-WHEEL DRIVE



Makes tire chains unnecessary. When extra traction is needed, sprocket chains are slipped over sprockets and pinned. Attached and detached quickly, simply, without removing wheels (in picture, wheel removed to show construction).

Trucktor Trailing Axles are available for most truck makes and models. Call your Truck Dealer, Trucktor Distributor, or write direct.

THE TRUCKTOR CORPORATION, Route 22, Mountainside, N. J.

Trailing Axles for 6-Wheeler Conversions. Single and Tandem-Axle Trailer Assemblies with Steel Springs or General Air Springs.

DATES and DOINGS

AUGUST

- 16-18—Society of Automotive Engineers, International West Coast Meeting, Hotel Statler, Los Angeles, Cal.
- 19-21—North Dakota Motor Carriers Assn., Annual Convention, Prince Hotel, Bismarck, N. D.
- 28—Nebraska Motor Carriers Assn., Annual Convention, Omaha, Neb.

SEPTEMBER

- 4-6—Mississippi Motor Transport Assn., Annual Convention, Hotel Buena Vista, Biloxi, Miss.
- 7-11—National Truck Rondeo, American Trucking Assns., International Amphitheater-Sherman Hotel, Chicago, Ill.
- 9-11—Indiana Motor Truck Assn., Annual Convention, French Lick Springs Hotel, French Lick, Ind.
- 9-11—Kansas Motor Carriers Assn., Annual Convention, Hotel Broadview, Wichita, Kan.
- 9-11—Virginia Highway Users Assn., Annual Convention, The Chamberlin Hotel, Old Point Comfort, Va.
- 12-15—National Truck Leasing System, Annual Meeting, Bismarck Hotel, Chicago, Ill.
- 13-14—Wisconsin Motor Carriers Assn., Annual Convention, Lake Lawn Resort, Lake Delavan, Wis.
- 13-15—American Road Builders Assn., Annual National Highway Conference, Deshler-Hilton Hotel, Columbus, Ohio.
- 15-17—National Assn. of Motor Bus Operators, Annual Convention, Drake Hotel, Chicago, Ill.
- 16-17—Tennessee Motor Truck Assn., Annual Convention, Claridge Hotel, Memphis, Tenn.

- 16-18—Michigan Trucking Assn., Annual Convention, Park Place Hotel, Traverse City, Mich.
- 16-18—Western Assn. of State Highway Officials, Annual Conference, Challenger Inn, Sun Valley, Idaho.
- 18—Massachusetts Motor Truck Assn., Annual Meeting, Somerset Hotel, Boston, Mass.
- 18-19—Pennsylvania Motor Truck Assn., Fall Meeting, Pocono Manor Inn, Pocono Manor, Pa.
- 20-22—Truck Body and Equipment Assn., Annual Meeting and Exposition, Hotel Statler, Buffalo, N. Y.
- 22-23—Central Motor Freight Assn., Annual Meeting, Palmer House, Chicago, Ill.
- 27-30—American Transit Assn., Annual Meeting, William Penn Hotel, Pittsburgh, Pa.
- 28-30—Southeastern Assn. of State Highway Officials, Nashville, Tenn.
- 29-Oct. 2—Local Cartage National Conference, Annual Convention, Hotel Warwick, Philadelphia, Pa.

OCTOBER

- 7-9—Idaho Motor Transport Assn., Annual Meeting, Shore Lodge, McCall, Idaho.
- 8-9—North Carolina Motor Carriers Assn., Annual Convention, Hotel Carolina, Pinehurst, N. C.
- 14-15—National Automobile Transporters Assn., Annual Convention.
- 18-20—National Accounting & Finance Council, American Trucking Assns., Sheraton Hotel, Chicago, Ill.
- 18-20—Society of Automotive Engineers, National Transportation Meeting, Sheraton-Plaza Hotel, Boston, Mass.
- 18-22—National Safety Council, Annual Safety Congress and Exposition (Commercial Vehicle and Transit Safety Sessions, La Salle Hotel), Chicago, Ill.
- 25-27—National Lubricating Grease Institute, Annual Meeting, Mark Hopkins Hotel, San Francisco, Cal.
- 25-29—American Trucking Assns., Annual Convention, Waldorf-Astoria Hotel, New York, N. Y.
- 26-27—Society of Automotive Engineers, National Diesel Engine Meeting, Hotel Statler, Cleveland, Ohio.
- 27-29—American Society of Body Engineers, Annual Technical Convention, Rackham Memorial Bldg., Detroit, Mich.

NOVEMBER

- 4-5—Society of Automotive Engineers, National Fuels and Lubricants Meeting, Mayo Hotel, Tulsa, Okla.
- 8—National Assn. of Railroad & Utilities Commissioners, Annual Convention, Chicago, Ill.
- 14-20—National Truck Transportation Week.
- 17-19—Arkansas Bus & Truck Assn., Annual Meeting, Marion Hotel, Little Rock, Ark.
- 18—Maine Truck Owners Assn., Fall Get-Together, Lafayette Hotel, Portland, Me.
- 18-20—Montana Motor Transport Assn., Annual Meeting, Northern Hotel, Billings, Mont.

MORE STOPPING POWER for the TOUGH JOBS!

For years SCANDINAVIA BRAKE LININGS have been identified with the heavy duty field. Here performance, not claims, determines the choice of brake linings and brake blocks. Cost conscious operators have learned through EXPERIENCE THAT SCANDINAVIA ZT-MOLDED COMBINATION BRAKE BLOCKS offer that extra margin of safety with low cost per mile maintenance. Save the tough jobs for SCANDINAVIA!

50 YEARS of SERVICE
1904 — 1954



BRAKE BLOCKS • SCANDINAVIA • BRAKE LININGS

DIVISION OF SCANDINAVIA BELTING COMPANY
250 CENTRAL AVENUE, NEWARK 1, N. J.
BOSTON • PLANT: CHARLOTTE 1, N. C. • CLEVELAND

PUTS YOU A STEP AHEAD

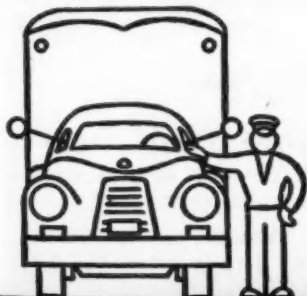
CUTS COSTS MANY WAYS FOR YOU

WIX-PAX DIRECT SHIPMENTS AT SPECIAL, LOW FLEET PRICES GIVE YOUR FILTER COSTS THE AXE

WIX-PAX spells big savings for you right from the start, brings you genuine WIX HEVI-DUTY Oil Filter Cartridges at special, low prices. *Engineered Filtration* saves money for you all along the line... gives you longer service from your oil, Filter Cartridges and engines, cuts maintenance and repair, keeps your payload units rolling!

**WIX-PAX
OFFERS NO SECOND
LINE CARTRIDGES—
ONLY GENUINE TOP
QUALITY WIX!**

This money-saving Service consists of prepaid, fast motor freight shipments of 100 lbs. or more, direct to you from the WIX Factory or nearest Warehouse, with savings in distributor inventory and handling passed along to you in lower cost. Ask for the details on this money-saving Service today.



**WIX GIVES US ECONOMY
TWO WAYS—ENGINE
PROTECTION WITH TOP
PERFORMANCE AND
REALISTIC PRICES!**



**wix
FLEET MANUAL**

**FREE
TO FLEETS**

This useful WIX Fleet Manual keeps your fleet maintenance on the ball. Shows the whole story on every payload unit at a glance—performance, repairs and preventive maintenance. Absolutely FREE with your first WIX-PAX order.

WIX CORPORATION • GASTONIA, N. C., U. S. A.



Laugh it off!

Freight Claim Agent: "Junior, I hope you didn't kiss that little girl next door. Her neck's dirty."

Junior: "Her does?"

ccj

Truck Dispatcher: "What did the man say when you showed him how your trailer wheels ran over his cat?"

Truck Driver: "Nothing. He just stood there with a long puss."

ccj

Truck Driver: "Gee, babe, you've sure got a divine body. Jus' like Marilyn's. How you fill that waitress uniform?"

Diner Waitress: "Yeah, big boy. My body is remarkable, ain't it. You know, my doctor onct told me, 'Myrtle, if you could take all the blood vessels in your body—the veins, the articles, the cappapillars—and lay them end to end, you would probably die.' What ya gonna eat, big boy, huh? What ya gonna eat?"

ccj

SLIM 'N GREASY, OUR SHOP ROUST-ABOUT, SAYS THAT GIRLS CAN CHANGE FROM GOOD TIME TO TWO-TIME IN NO TIME.

ccj

Shop Foreman's Wife: "Where is that buxom brunette who was serving cocktails ten minutes or so ago?"

Hostess: "Oh, I'm sorry. Are you looking for a drink?"

Shop Foreman's Wife: "No! I'm looking for my husband."

ccj

Steno: "Ooh, la, la, honey. Do you know Jim, that handsome foreman out in our battery and radiator repair section? Well, we had a late date at the beach last nite. I wore my new Bikini and we went for a moonlight swim. He's a perfect gentleman!"

File Clerk: "Yeah, I know. I've been out with him. He bores me too!"

Traffic Man's Son: (At first concert during a soprano solo) "Why is that man shaking that stick at that woman?"

Mother: "Shhh. He isn't shaking it at her."

Son: "Then why is she screaming?"

ccj

Driver's Wife: "Before we were married, you said I had the shape of a beautiful ship."

Driver: "Yeah, but now your cargo has shifted."

ccj

Tire Record Clerk: "I don't know if I'm going to like working in this department. I hear your Maintenance Superintendent drinks something awful."

Maint. Steno.: "Yeah, he sure does. I tasted it."

ccj

Mechanic: "Drinking maksh you sho bootiful."

Girl: "But I haven't been drinking."

Mechanic: "No, but I have."

— "Cici Jay" —



"The Editor is on vacation!"

Nurse: "I'm afraid that truck line operator in room 514 is a goner."

Doctor: "Impossible! I just saw him trying to kiss you!"

Nurse: "That's just it. So did his wife."

ccj

Billing Clerk: "When did you first become interested in girls?"

Traffic Rate Clerk: "When I first discovered they weren't boys."

ccj

Blonde: "You don't know how glad I am to make your acquaintance, Sam. I'd probably still be sitting on that bar stool drowning my loneliness with Old Fashioneds if you hadn't mustered the courage to introduce yourself. I've always been fond of the name, Sam. I know George means 'lover of horses,' and Philip means 'beloved'; but please tell me what does Sam mean?"

Motor Mechanic: "Sam means business, baby, business!"

ccj

LUCKY LOUIE SAYS YOU SHOULDN'T SHOOT CRAPS. THE BUCK YOU SAVE MAY BE YOUR OWN.

ccj

Freight Checker: "You remember telling me before our marriage that several men had proposed to you?"

Shrewish Wife: "Yes, dearie."

Freight Checker: "Well, I wish you had married the first fool who proposed."

Wife: "I did!"

ccj

Freight Loader: "Doll girl, I could sit here and do nothing but look at you forever."

Cuddlesome Cutie: "Yeah, lame brain. That's what I'm beginning to think, too."

Resume Work



Over 10 years old and still as fresh as a daisy! This unit is as rattle-free as the day it rolled off the line.

AUTOCARS GROW OLD GRACEFULLY

Haul profitably for years



AN AUTOCAR CUSTOMER remarked "the sheet metal lasts longer on Autocars than on other makes of trucks. You never see an old Autocar coming toward you with its fenders flapping like the ears of a galloping hound dog." That's because Autocar uses heavier gauge sheet metal and treats it with a special coating process before painting it. The result is that Autocars go through a lifetime of tough service and remain trim, taut, and profitable to operate.

AUTOCAR TRUCKS

AUTOCAR DIVISION OF THE WHITE MOTOR CO., EXTON, PA.

Autocar Trucks are sold and serviced throughout the world

NEW AUTOCAR FACT BOOKLET JUST OFF THE PRESS!

Tells you about Autocar's
other exclusive advantages.

FILL IN AND MAIL THE COUPON

**Autocar Division of The White Motor Company
Exton, Pa.**

Please send me the Autocar Fact Booklet.

Name and Title _____

Firm Name _____

Address _____

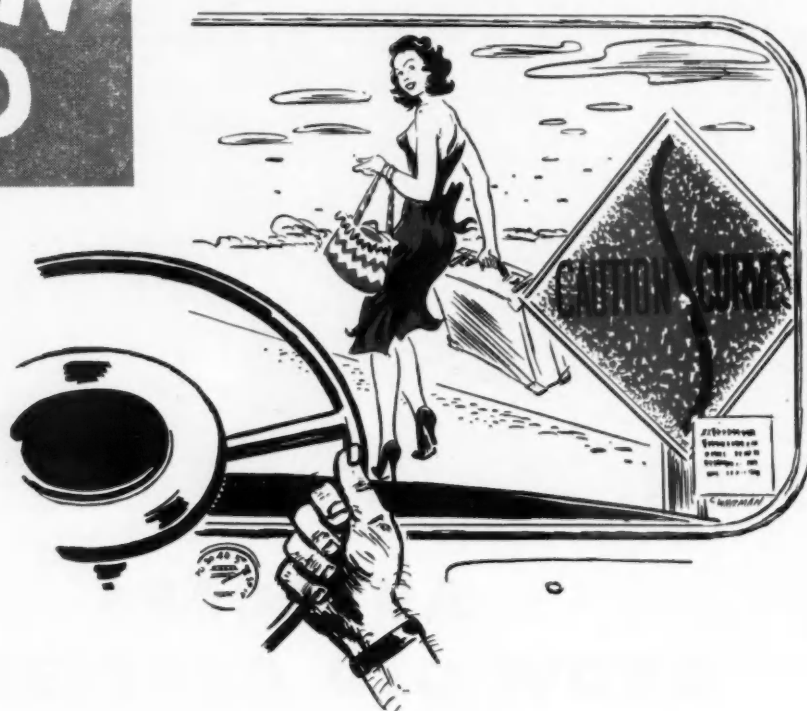
No. of trucks in fleet _____

Type of operation _____

3H

CC BULLETIN BOARD

DRIVERS • MECHANICS • SAFETY MEN *Please Note!*



Caution—Curves!

This crazy quilt pattern of US highways challenges every man who climbs behind a steering wheel. But the guy who figures his curves and his sight distances correctly will live to see better roads built. It's simply a matter of relying more on caution than on blind hope.

Get acquainted with the road before you take a chance with speed. Highways are something like models in that their curves, while interesting, are dangerous. Sometimes they are misleading. You've got to know the radius, the elevation, the road width and something about the road surface to negotiate them safely.

If you would keep from (1) gouging the other lane, (2) running off the shoulder, (3) tearing down the guard rails, slow down until you see what's around the corner. You can always speed up—but sometimes you may have a hell of a time stopping.

Most older highways and country roads have sight distances under 400 feet. And most drivers travel too fast to stop within this distance when perception, reaction and braking time are considered. So you can assume that there is a road hazard wherever there is a vehicle or a road to put one on.

Those drivers who thought they could see over a hill or around a corner are no longer with us. And those who *hoped* there wasn't a car coming are recuperating nicely—some of them. No, periscopes and radar ain't enough. It takes some good old fashioned horse sense to negotiate our roads today.

No highway is built good enough to compensate for poor judgment or too high speeds. So let the damn fools take the chances. You take care!

INTERNA
An

Here's n
heavy-d
great ne
less wei

INTER
heavy-d
reasons
enginee
promise
around

Thes
INTERNA
GVW o
your IN
truck t

INTER



COMMERCIAL



NEW INTERNATIONAL 220 Series, built with reserve power . . . weight saving, to sustain faster schedules with bigger payloads. Available with single or 2-speed axles, 5-speed direct or overdrive transmissions. Standard, sleeper or (shown) space-saver Comfo-Vision cabs. Wheelbases from 142 to 193 inches. GVW ratings, 26,000 to 30,000 lbs.

New High-Performance Standard!

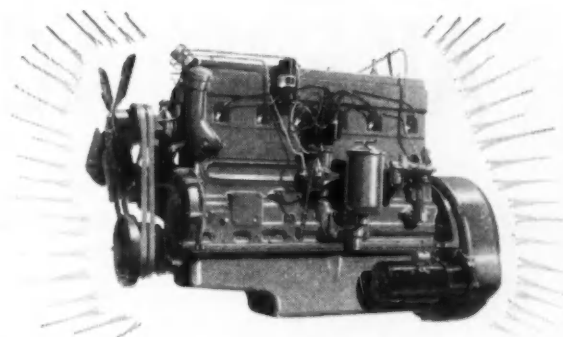
INTERNATIONAL — 22-Year Heavy-Duty Sales Leader Announces another great new truck series!

Here's more leadership news from INTERNATIONAL — heavy-duty sales leader for 22 straight years! It's the great new 220 Truck Series, built with *extra power, less weight* to handle bigger payloads, faster!

INTERNATIONAL is the No. 1 choice of cost-conscious heavy-duty operators year after year for good, solid reasons: Every INTERNATIONAL Truck is Tough Job engineered to take it — *all-truck* built with no compromises anywhere — built and balanced to do its job around the clock at extra low cost per mile.

These same leadership standards make every INTERNATIONAL, from ½-ton pickups to 90,000 lbs. GVW off-highway models, your best truck buy. See your INTERNATIONAL Dealer or Branch for the *right* truck to cut your operating costs.

INTERNATIONAL HARVESTER COMPANY • CHICAGO



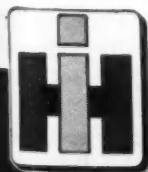
Brand New 201 hp Royal Red Diamond Engine!

Newest and most powerful of the famous INTERNATIONAL built Red Diamond Engines! 501 cubic inch displacement—201 hp —430 lb-ft torque for maximum efficiency at low rpm—New precision-set, special alloy sleeve-

less cylinder block — Newly designed 4-barrel carburetor — Long Life sodium-cooled, stellite-faced slo-roto exhaust valves — Chrome top rings — U-flex oil rings — Tough, rugged, all-truck high-performance power.

International Harvester Builds **McCORMICK®** Farm Equipment and **FARMALL®** Tractors...Motor Trucks...Industrial Power...Refrigerators and Freezers

Better roads mean a better America



INTERNATIONAL® TRUCKS

"Standard of the Highway"



Aerial photograph shows new office building in foreground, terminal area in center. Arrow points to service shops diagrammed at right. Drive-in theater is part of Akers realty development that includes shopping center, many homes

AKERS' ACRES . . . FABULOUS

Key spot in a \$13 million operation, it is the control point for 48 terminals, serves

WE CAN think of few people, at least in the common carrier end of the business, who are not aware of the impact created by the Akers brothers — Bill, John, Scott and Charles. Together with their long-time associate, Robert Wren, they manage the affairs of Akers Motor Lines, Inc. In 20 years they have catapulted the business into the top bracket of the nation's carriers with a revenue last year of more than \$13 million.

But we can think of many, like we were, who are unaware of the fantastic improvements that have been made during the past two

A Fleet Shop Visit By Bart Rawson

years at the company's headquarters in Gastonia, N. C. Here in words and pictures we ask readers to join us in a trip through the plant. We believe it contains ideas for all types of carriers, large or small, private or for-hire.

In the spacious air conditioned "front office" we learn more details about the operation. We find out,

for instance, that the fleet consists of over 1200 pieces of rolling equipment (mostly of the type illustrated at the far right), that it operates between 48 terminals on the eastern seaboard from Georgia to Massachusetts and that last year it hauled 750 million lb of freight over a total of 30,000,000 miles.

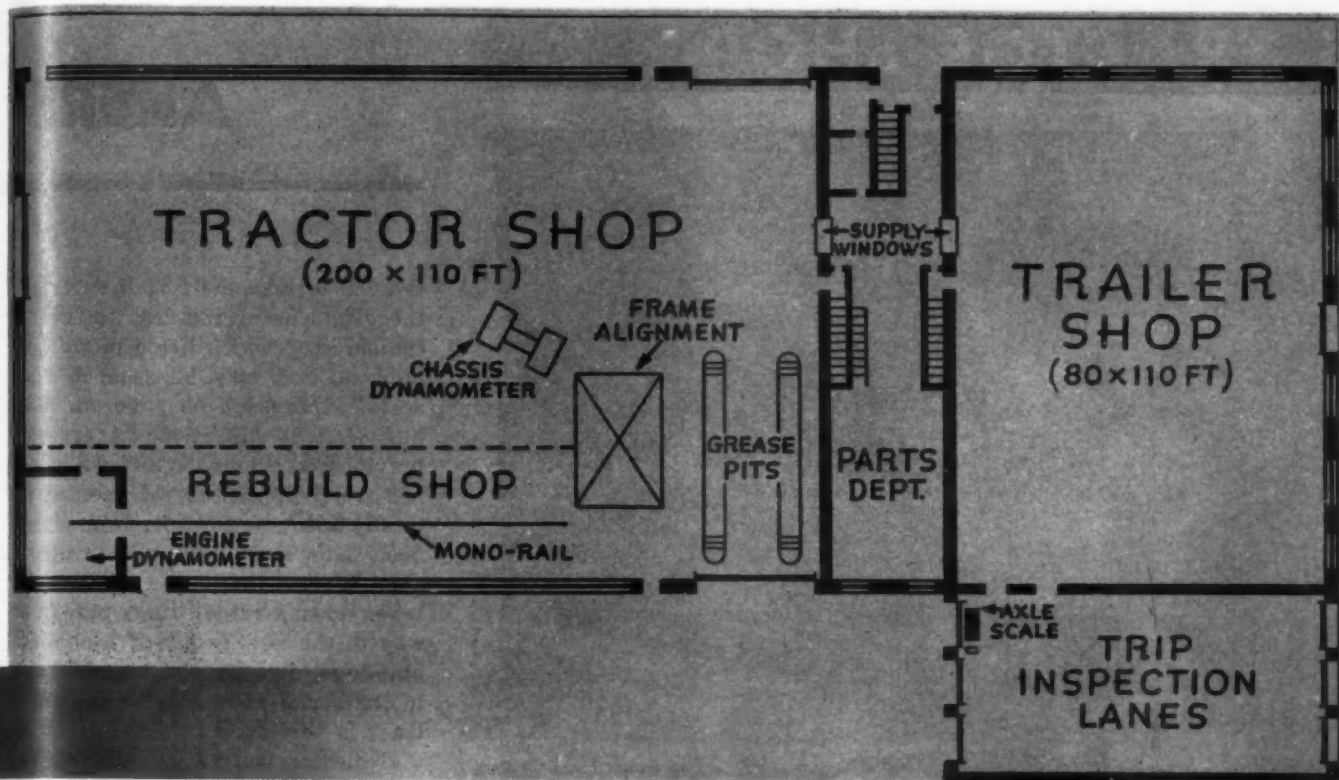
In the trophy room we get a quick look at the fleet's safety awards—learn that the fleet has an average of 300,000 miles between accidents.

Out at the dispatcher's office, way at the rear of the terminal building, we find out that the fleet

FLEE

as maint

has 1500
lines conne
in the netw
all of the
completely
and Secret
us that in
one-tenth
vious buil
that this
alone pay
the fire-p



Layout of shops provides for orderly flow of traffic inside and outside as well as for complete service facilities. One inspection lane is for outbound vehicles, has a built-in axle scale. Other lanes are used for checking of inbound units

EQUIPMENT



US FLEET HEADQUARTERS

as maintenance center for the fleet's 1200 vehicles

has 1500 miles of leased teletype lines connecting all major terminals in the network. We also note that all of the new buildings are of completely fire-proof construction and Secretary-treasurer Wren tells us that insurance cost runs only one-tenth the former cost for previous buildings. He also tells us that this differential in insurance alone pays for the added cost of the fire-proof construction, includ-

ing complete and carefully engineered sprinkler system.

But of major interest to most readers, considering the wide range of their vocational activities, are the service facilities. Here, we will rely largely on the accompanying photographs and diagram, with only a running commentary on some of the highlights.

A favorite trick of Akers execu-
(TURN TO NEXT PAGE, PLEASE)

Typical of Akers over-the-road equipment is the 34-ft tandem-axle semi-trailer powered by a medium-duty gasoline tractor for short hauls and by a heavy-duty diesel sleeper or compact COE sleeper for the longer road trips

TRACTOR SHOP



TRAILER SHOP



AKERS'

ACRI

tives is to take their visitors from the grandeur of the front office to the old shop which lies directly behind it, and may be seen in the aerial photograph on page 68. We had visited this shop on several previous occasions. While we were not overly-impressed, we deemed it totally adequate for a medium sized fleet. Now it is used only for storage. From there the visitor is taken down a rather dingy passageway to the new group of L-shaped buildings, directly above the arrow in the aerial photograph. The contrast is terrific.

If memory serves us right, there is a well-equipped paint shop that has been retained from the old set-up. But soon we emerge into the three inspection lanes and find ourselves in the area in the lower right hand corner of the diagram on page 69. From there we will progress in an orderly fashion through the rest of the shop.

Inspection Lanes

Two of these lanes are used for in-bound inspections and include the usual visual checks for tires, brakes, lights and other safety equipment. Here also is a fuel island and complete facilities for oil, water and lubrication. And from here the shop dispatcher routes vehicles to the terminal, the main shop pits and to such other service areas as may be needed or scheduled.

The third lane is for out-bound vehicles. In addition to facilities for all final out-bound safety in-

TRACTOR SHOP includes, from top, (1) unit rebuild section equipped with an overhead hoist leading into engine dynamometer room, (2) lube pits, frame alignment gear and chassis dynamometer, and (3) spacious service area has muffler exhaust vents

TRAILER SHOP handles everything from sign painting to major rebuilding. It utilizes a Hyster 150 with lower fifth wheel mounted on forks for jockeying of loaded semi-trailers

spections, it is scale, pictures

Being par the problems happy to not ber of respon installing an this kind. It Morse scale, including au ing device, to authorities o Carolina. W happened if to be impro specific reply

"Every loa is weighed o exception, a found to be i of any stat load may pa to the term ranged or re

Trailer Shop

Two small inspection la Here we fin x 110 ft) an in the way and metal handle any t ticular inter special Hyst truck with l mounted on

While th that the mo hydraulic fi a tractor i long jockey

(TURN TO

SAFETY LAN checks on eq are weighed must comply returned to

SPECIAL E includes a ya with a Ceme wheel and a Ross & Whi handles a tr well as jock

RS'

ACRES

CONTINUED

s from
office to
tly be-
in the
88. We
several
e were
emed it
m sized
or stor-
itor is
assage-
shaped
arrow
he con-

spectons, it includes a built-in axle scale, pictured at the top of page 71. Being particularly conscious of the problems of overloads, we are happy to note the increasing number of responsible carriers who are installing and using equipment of this kind. It's a 20 ton Fairbanks Morse scale, identical in every way, including automatic electric printing device, to the scales used by the authorities of the state of North Carolina. When we asked what happened if a vehicle was found to be improperly loaded we got this specific reply:

"Every load which is dispatched is weighed on these scales, without exception, and if any loads are found to be in violation of the laws of any state through which the load may pass, they are returned to the terminal and either rearranged or reloaded."

Trailer Shop

Two small doors lead from the inspection lanes to the trailer shop. Here we find plenty of room (80 x 110 ft) and adequate equipment in the way of both woodworking and metal working machines to handle any trailer repairs. Of particular interest was the use of the special Hyster heavy-duty fork lift truck with lower fifth wheel plate mounted on the works.

While the Akers have found that the more or less conventional hydraulic fifth wheel mounted on a tractor is better for relatively long jockeying maneuvers in the (TURN TO PAGE 150, PLEASE)

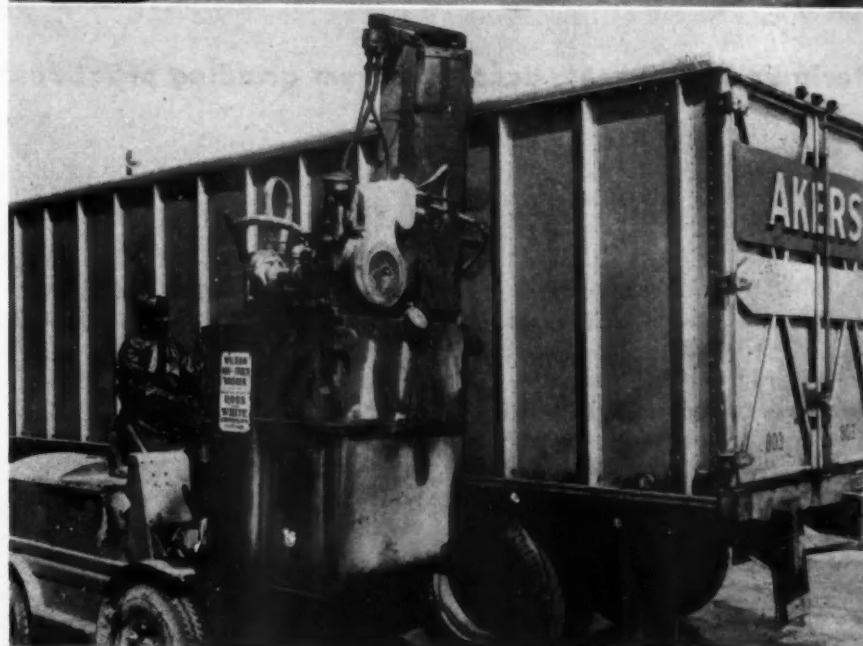
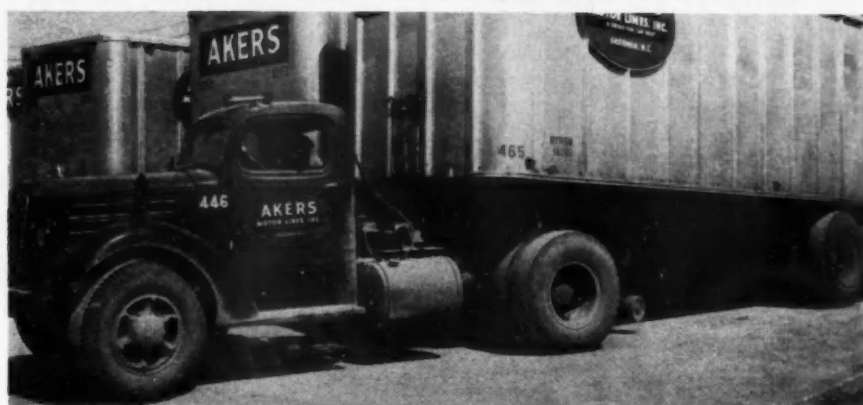
SAFETY LANES, at top, provide daily checks on equipment. Outbound loads are weighed on built-in axle scale, must comply with legal limits or be returned to terminal for reloading

SPECIAL EQUIPMENT in use also includes a yard trailer jockey equipped with a Cemco hydraulic lifting fifth wheel and air-controlled trip and a Ross & White portable washer which handles a trailer wash in 5 min as well as jockey used in trailer shop

SAFETY LANES



SPECIAL EQUIPMENT



Louisville Buses

Stop on Schedule



Decelerometer test is made after every major brake job. Buses must stop in 30 ft at 20 mph

Periodic adjustment, accurate drum grinding practices, careful balancing procedures

EVERY one of our 409 coaches can and does stop in 30 ft at 20 mph, thanks to a maintenance program that has as its objective safety, performance and low cost operation. Our brake program will actually produce better stops than this, but we feel that this requirement permits a safe stop with a minimum of discomfort to our passengers. Actually there is no problem in attaining effective brake performance.

By Torrens Smith

Superintendent of Equipment
Louisville Transit Co.

Good braking efficiency is simply a matter of:

1. Periodic service and adjustment.
2. Precision grinding and fitting practices.
3. Attention to factors affecting balance or synchronization.

4. Replacement or rebuild practices that produce dependable units.

Good brakes are a requisite in any operation, but in the transportation of live loads there is no substitute for precision practices in brake work. Our brakes get attention before service is necessary, and in this way we not only avert road delays and accidents due to brake failures, but attain more economical performance.

Above. Overs
drum with th

Drum and hu
Reconditioni

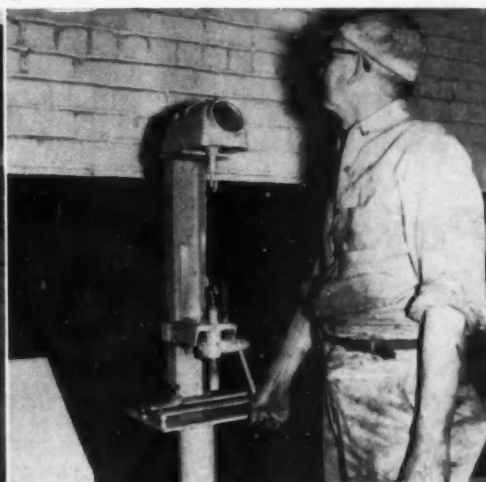
insure s

For exa
brake syst
out of the
rate test
tion with
An estima
ity of a c
prove the
motion of
morale bo
when driv
ment is
selves be

COMMERCIAL

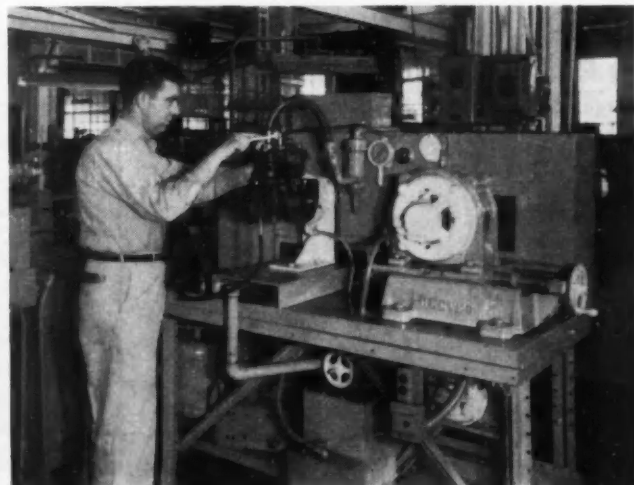
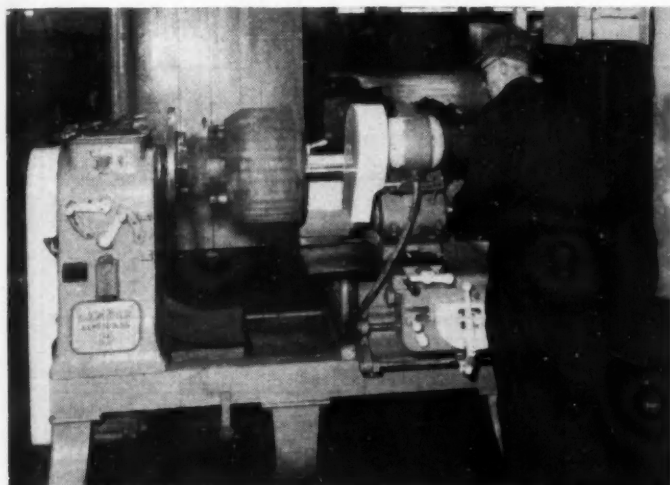


Above. Oversize blocks are ground to the circumference of drum with this grinder. Vacuum cleaner removes grindings



Pull back springs are checked on a home-made tester at each major overhaul—then matched for better balance

Drum and hub are ground as a unit on a heavy duty grinder. Reconditioning is done when distortion exceeds .005 in.



Home-made air compressor tester makes possible a complete check and adjustment before installation on bus

insure safe and sane stopping distances

For example, a newly rebuilt brake system is never permitted out of the yard without an accurate test of the rate of deceleration with a Tapely decelerometer. An estimate of the stopping ability of a coach is not enough. We prove the job not only for the promotion of safety, but also as a morale booster for drivers. For when drivers know their equipment is dependable, they themselves become more safety con-

scious, and better drivers. We require a 60 per cent efficiency rating at 22 mph, a point at which we can stop in 30 ft at 20 mph.

Improved Block Mileage

Our brake program has been producing a gradual improvement of block life over the past five years. Our average brake block mileage has increased from 37,899 miles on front brakes and 36,752 miles on rear brakes to an aver-

age of 54,289 miles on front brakes and 56,122 on rear brakes on the same buses.

A test of braking capacity revealed the fact that the fronts were not doing their full share of the work, possibly because a great percentage of our stops are made at relatively low speed, when weight shift is not so pronounced. We installed heavier springs in the rear brake chambers (110 lb springs in place of the 30 lb used on original coaches) and as a result produced a decided improvement in synchronization. And better performance accompanied the modification, as decelerometer tests showed.

Another important factor in good performance is the drum-to-lining contact, and while this

(TURN TO PAGE 124 PLEASE)

Accident Prevention Fund

Pays Off for Sanders

Driver incentive helps small fleet cut down on minor accidents; reduces insurance premiums; and improves employee morale

By Richard Gibb

Garage Superintendent, Fred Sanders Manufacturing, Retail Confectioners

INSURANCE companies are both alert and realistic. In 1948 when they asked us a substantially greater premium for the collision portion of our coverage, we took a long look at our accident rate with the idea of doing something about reducing it.

The result was an accident prevention fund that has helped to accomplish this objective. In addition, the plan has improved driver morale and raised our standards of handling equipment.

The Sanders company makes baked goods and candies, delivering them in our own vehicles in and around the Detroit area. The entire fleet is composed of Fords. We have fifteen ½ ton panel deliveries and ten company cars for general city work. We have 26 tractor-trailer combinations which service our own stores.

We are a small fleet, and we had little experience upon which to base a safety program of this type. On the other hand we could not afford the existing situation in careless handling of equipment.

There were far, far too many small accidents; the scratches, the dents, the rubs, the broken mirrors; that didn't amount to much

individually but still were directly responsible for the insurance company demands. There's nothing like a multitude of these small accidents to make the insurance budget top-heavy. Over the year their costs far outweighed the costs of the major accidents.

Not only did we want to avoid the increased costs of the collision insurance but we wanted to cut down the number of small accidents, which, we felt, were largely avoidable and largely the result of driver carelessness. Our idea was to come up with some economical plan which would do both of these things; which would be easily administered, and which would be of direct and personal interest to all of our drivers. An all-inclusive plan designed to make everyone happy, or at least, slanted that way.



Above. Sanders uses both light trucks and trailers. Below. The Daily Accident Report form helps to establish responsibility for vehicle damage. Note inspection detail necessary to release vehicles

DATE		TRUCK NO.									
DAILY ACCIDENT REPORT											
Last driver signing his acceptance to truck will be held responsible for all damage to truck until released by new driver signing his acceptance.		Front Left Fender	Front Right Fender	Rear Left Fender	Rear Right Fender	Body	Bumpers	Head Lights	Misc.	Top	Do not sign on the line unless the condition of truck is noted on space designated.
GARAGE RELEASE											
Driver No. 1 - Acceptance											
Driver No. 1 - Released											
Driver No. 2 - Acceptance											
Driver No. 2 - Released											

Accident Prevention Fund

After some thought we devised our "Accident Prevention Fund" plan. The mechanics of the accident prevention fund are comparatively simple. Every six months Sanders puts \$500 cash into the fund. Thus the plan is renewed twice a year. Because this is so it is almost always "new," does not become stale and therefore uninteresting to the drivers. Every accident which costs money is charged off against the fund. And we mean EVERY accident no matter whether of a major nature or merely a scratch or a broken mirror.

At the end of the six months the total costs of all accidents are charged off against the fund and what is left is divided among the drivers, according to their earnings. The accidentless driver makes

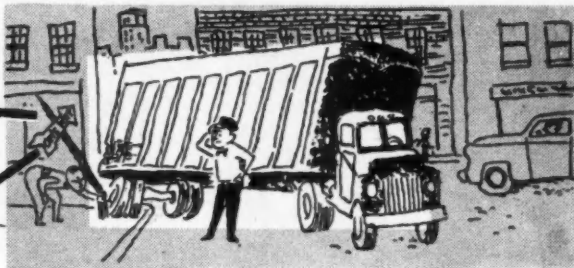
the most. T accidents m that one of plan, and a accidents a is that this which all c with the g definite cor driver pena

How It Works

We deter fund monie to at the period. Al 12 points. dent, or n vehicle, the ductions fr

Up to \$1 tion is 100 \$10 is ded

12 points



Accident Prevention Fund

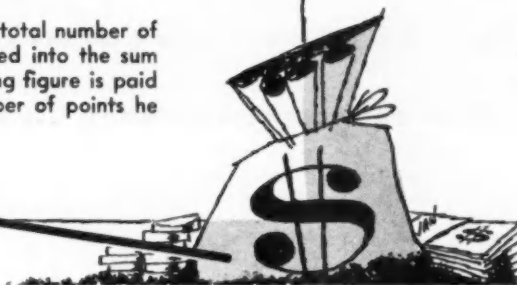
Amount underwritten by the company—\$500.00. Plan is renewed twice a year. All drivers start with 12 points. In event of an accident or material damage to the vehicle, the following table of deductions applies:

Up to \$10 in damage—100 per cent
 \$10.01 to \$100—\$10 plus 50% of balance
 \$100.01 and over—\$55 plus 40% of balance

The driver involved in an accident is brought to the trial board composed of three drivers and two company members plus a chairman. The following penalties apply when accident is judged avoidable:

Up to \$10—1 point \$50.01 to \$100—3 points
 \$10.01 to \$50—2 points \$100.01 to \$200—4 points
 \$200.01 and over—5 points

At the end of the 6-month period the total number of points accrued by all drivers is divided into the sum remaining in the Fund, and the resulting figure is paid to each driver according to the number of points he has earned.



the most. The driver with the most accidents makes the least. We feel that one of the chief merits of the plan, and a major reason why our accidents are steadily decreasing, is that this is a common fund in which all drivers can participate with the good drivers making a definite contribution and the poor driver penalizing the fund.

How It Works

We determine how much of the fund monies each driver is entitled to at the end of each six-month period. All drivers start off with 12 points. In the event of an accident, or material damage to the vehicle, the following table of deductions from the fund applies:

Up to \$10.00 (in damage) deduction is 100 per cent. (The entire \$10 is deducted from the fund.)

From \$10 to \$100—deduction is \$10 plus 50 per cent of the balance.

From \$100.01 and over deduction is \$55 plus 30 per cent of the balance.

It might be thought that these deductions, particularly in the major cases, would wreck the fund so that nothing would be left at the end of six months for the drivers. This has not happened. First, because our major accidents are extremely rare and, second, because only a certain percentage is deductible in the case of the big accidents. Also, with the introduction of the fund, accidents started decreasing. Thus our fund is kept "alive," and always of interest.

Driver Points

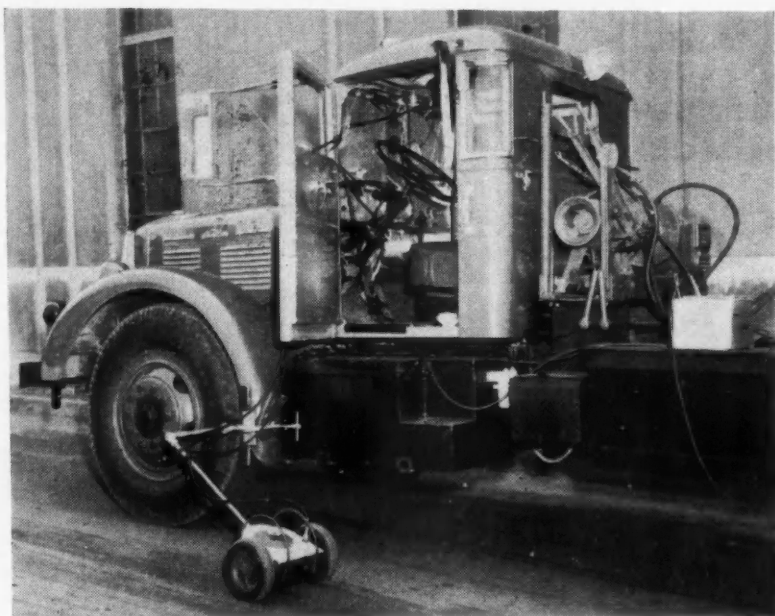
The driver involved in an accident, or having a vehicle damaged

while under his jurisdiction, is brought before the trial board and fined a certain number of points, or absolved, as the case may be. The following penalties are used in the case of preventable accidents:

Up to \$10.00.....1 point
 \$10.01 to \$50.....2 points
 \$50.01 to \$100.00.....3 points
 \$100.01 to \$200.....4 points
 \$200.01 and over.....5 points

This is the table used to determine to what extent each driver participates in the fund at the end of the six months. We can take two actual histories to see how the drivers made out. From January to June, 1949, or just after we started the fund, we found a total number of accrued points on the part of all drivers to be 282. The money left in the fund to be divided

(TURN TO PAGE 154, PLEASE)



Many drivers don't know about brake lag and its effect on stopping distance, so here's how . . .

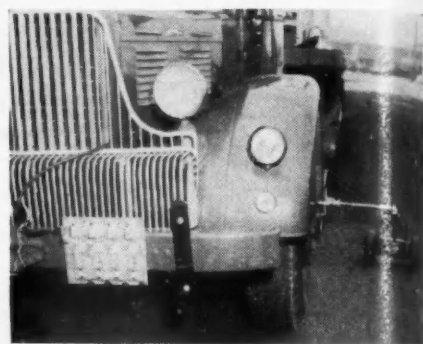
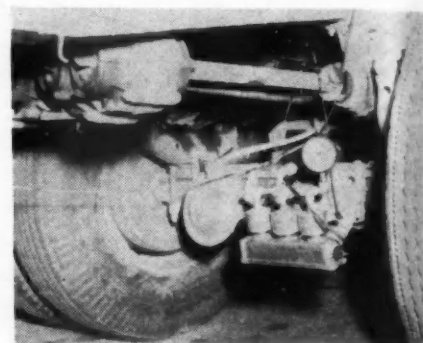


Fig. 1, above. Equipment used in the tests includes a 4-barrel detonator

Fig. 2, below. Detonator connects to 3 switches which connect to diaphragm

Fig. 3, at left. Separate, calibrated speedometer measures speed in tests



BRAKE TEST DATA Aids Drivers

DO YOUR brakes meet the ICC minimum specifications? How do you know? You don't know until you have made actual physical tests, and even then your knowledge is only good for a limited time. We became concerned recently with the braking efficiency of our vehicles and started looking for ways and means for improving it.

Our testing equipment now is practically complete, with the exception of a pen-motor or tape recorder that we expect to acquire and with which we can make stationary tests. We also use a pyrom-

By Charles M. Elliott

Dept. of Water and Power
City of Los Angeles

eter so that we can check the drums for uneven heat. In some instances, we found that poorly synchronized brakes caused uneven wear in the lining and unusually high temperatures to reach the bearings on the particular wheel involved as the heat traveling through the brake shoes eventually extends into the axle housing. In the course of test-

ing with the pyrocon, we endeavor to keep the readings of each drum within 25 deg of each other.

Lag Distance

A point of concern in our operation was lag distance. On the first tests, lag was nearly as long as the braking distance. It proved a point that is becoming more and more apparent—*most drivers do not know about brake lag and its effect on stopping distance.* Where the pool system is used, this problem is magnified intensively as drivers do

(TURN TO PAGE 130 PLEASE)



SPEED 20.7
30.3 FT. PER

4 SHOT ELECTRIC
MOUNTED ON F



DATA IS AVERAGE OF 3
MADE WITH DEPT. TRUCK
ON JULY 18, 1952, AT 1630

ROAD SURFACE - DRY
GRASS VEH. W. T. - 28.7
DECELERATION - 20.1
COEF. FRICTION - .43

APPROVED: *Chas. M. Elliott*
ENGINEER IN CHARGE OF
CENTRAL FUEL DIVISION

SIGNED: *W. T.*
MECH. EN.
WITNESS: *AB*
DRIVER

TRUCK
BRACKEN
2-AXLE
HEATING

HEIGHTS

FRONT AXLE
REAR AXLE
TOTAL

SPEED

GRADE

INITIAL

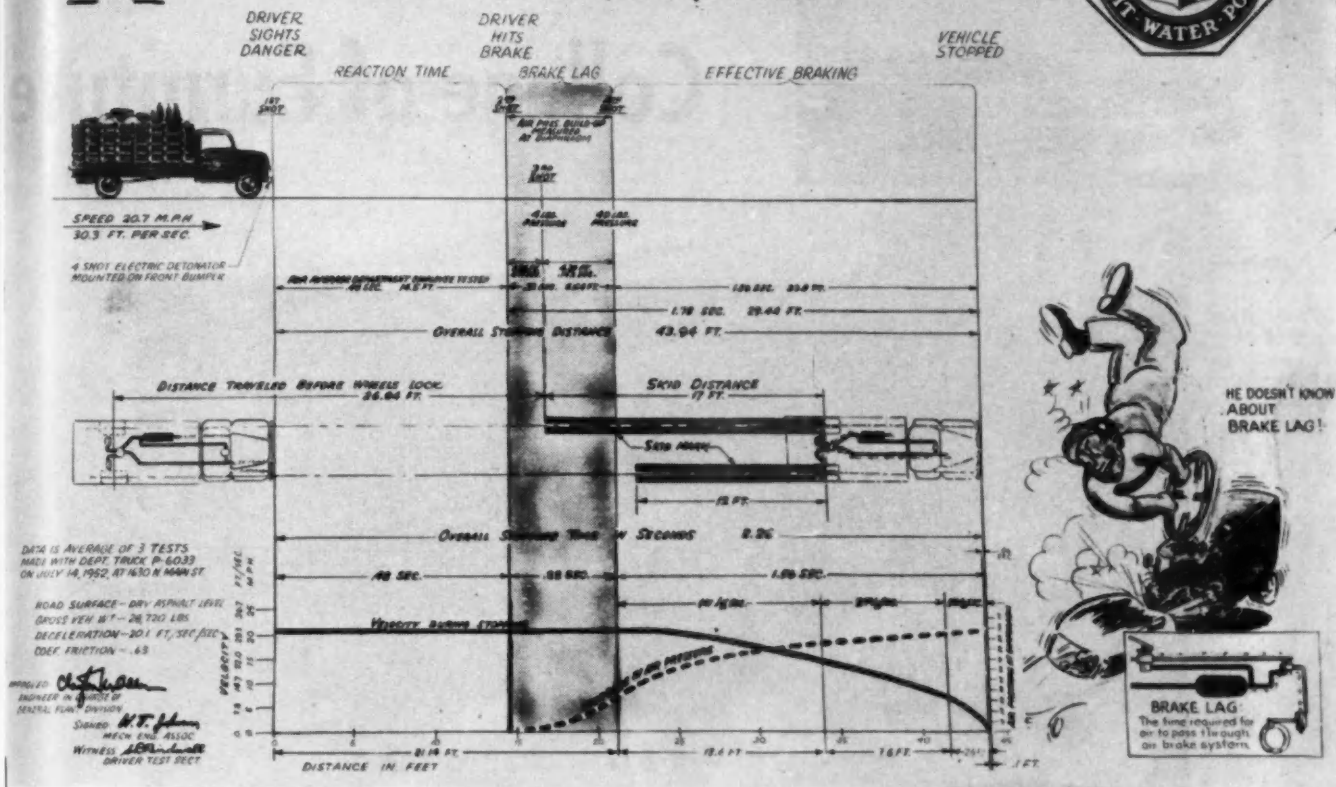
AIR PRESS

EACH G

AVERAGE



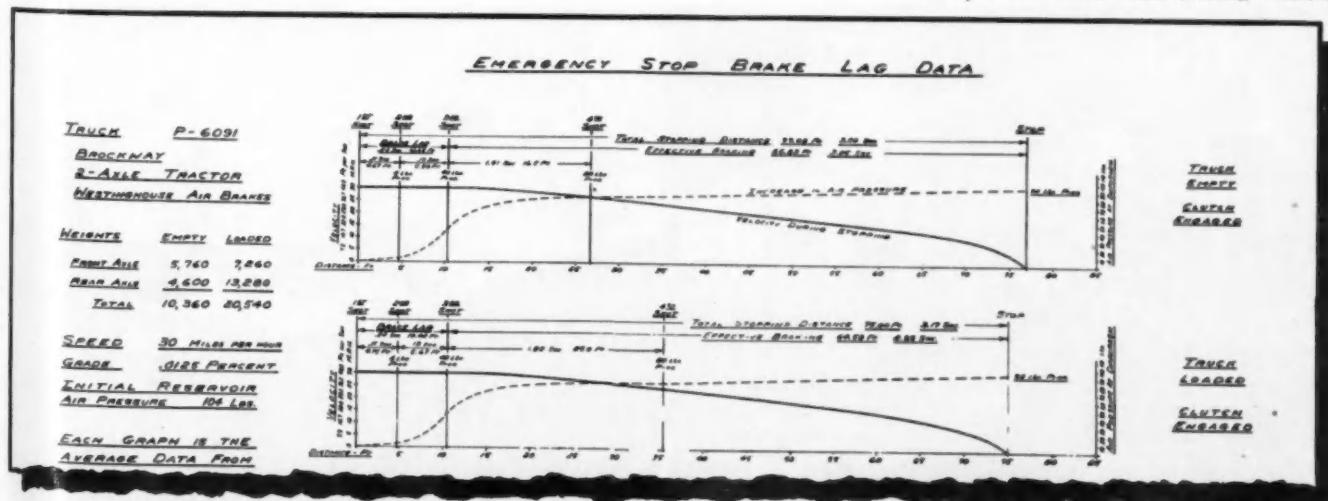
ATTENTION TRUCK DRIVERS! THIS IS AN EXAMPLE OF AN EMERGENCY STOP WITH AIR BRAKED EQUIPMENT



Driver poster shows complete test picture in both time and distance for reaction, brake lag and stopping. Shaded area shows that at 20.7 mph the truck went 6.64 ft between time brakes were applied and time they became effective

Driver Training

Fig. 4. Similar diagrams show small difference in time and distance required to stop loaded or empty truck. Identical tests with clutch disengaged resulted in empty truck traveling 9 ft, 7 in. more than loaded vehicle





AERO MAYFLOWER'S College of Furniture

Know



At top, Trailer body permanently located adjacent to "College" building speeds training

Above, Week's instruction in paper work includes ICC logs, bills of lading and reports

Instructor uses trailer body to show students how to pad furniture for long distance moves

Model two-story, five-room house provides actual experience such as in dish packing, below



After f
cated"
ing sat

“WAL
driver ov
two year
to travel.
sified ad
paper an
assume t
the Aero
does not
one of t
must hav
that the
there to
they war
And
weeks of
cants car

Knowledge



Driving instruction starts with training on a roдео course, at left. Later trainee rides and drives with a regular driver for a two-week period, above. During this time, reports go in on trainee's progress

By C. W. Hulett,

Assistant Manager
Service & Operations Dept.
Aero Mayflower Transit Co., Inc.

After five weeks, the program produces "certified" personnel with intensive training in driving safely, furniture handling and paper work

W"ANTED: truck semi-trailer driver over 25 years of age with two years experience. Must be free to travel." You might find this classified ad in an Indianapolis newspaper any time, and you might assume that it had been placed by the Aero Mayflower Transit Co. It does not cover the qualifications one of the company's van drivers must have, but it signifies the fact that the company will start from there to train a good man the way they want him trained.

And after approximately five weeks of schooling, accepted applicants can not only drive a furniture

van; they can pack furniture, load it, fill out the many required forms, and get the goods to its destination promptly. It's all in the way you select, train and supervise. And here's the way it's done.

Ten Training Steps

All applicants go through ten selective and intensive steps on their way toward competent furniture movers. They 1. have an introductory interview. 2. fill out an application, 3. come back for a planned interview, 4. get a physical examination, 5. return for a series of written tests, 6. take a battery of

psycho-physical tests, 7. spend three days on a test course with a driver trainer, 8. ride with a regular driver (and drive) for a period of two weeks, 9. come back to Indianapolis for a two-week course in the "College of Furniture Knowledge" and finishing all this, 10. are provided with certificates and are turned back to the operating department for road assignment.

It's not as tough as it is intensive, and a good man has no trouble in meeting Mayflower's requirements. Once hired, the driver knows he has all the basic skills and knowledge he will need for the responsible job of driving a furniture moving van. That's why driver turnover at Mayflower has been reduced substantially during the last five years since this selection and training program has been in effect.

"College" Home

The only training school of its kind in the U. S.—that's the College of Furniture Knowledge, comprising the ninth step in the education system. Mayflower has set up

(TURN TO PAGE 120 PLEASE)



\$10 →

Shop Hints

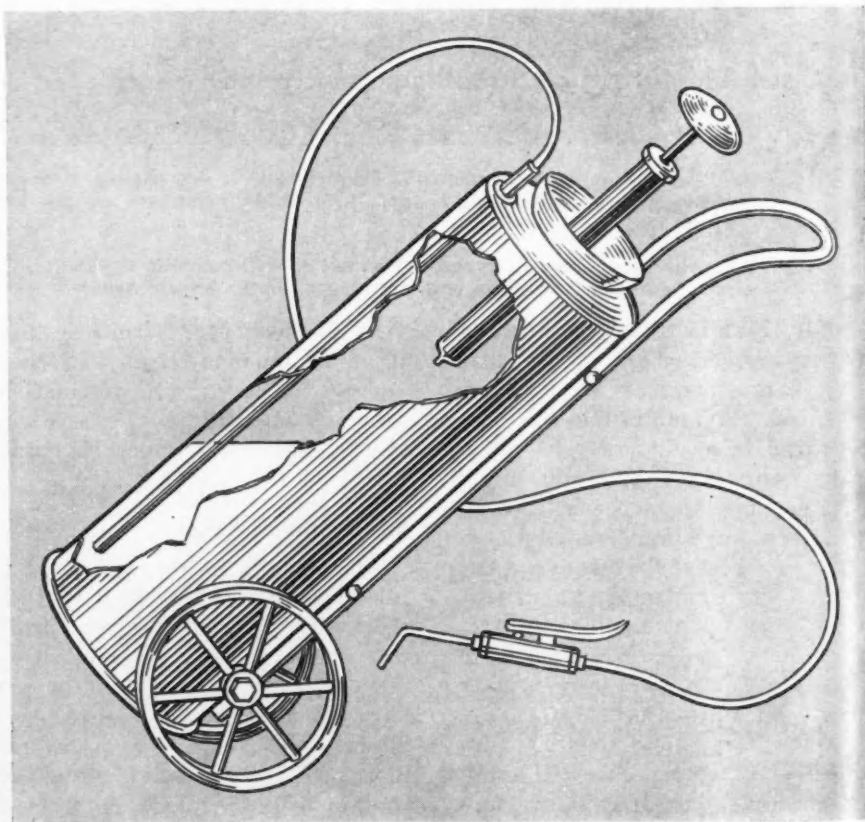
Here are some swell time savers for fleet shops.
Let us have your ideas for new tools or short cuts
to service. We'll pay \$10 and \$25 for good ones.

\$25 ↓

Battery Filler

By A. A. Dach
Assistant Transportation Mgr.
Supplee-Wills-Jones Milk Co.

Our first attempt at a portable water supply for filling batteries in our large fleet was a hot water bottle, but its capacity was too small. We then made this water dispenser from a garden spraying unit. The bicycle-type pump gives us needed pressure to permit a good flow of water when the nozzle valve is depressed, and the wheels give us plenty of mobility.



Fog L

By

Here is
night on to
an old fog
mirror with
welded to
height adj
about 10 i
strips of ir
nut and w
double con

Air

I find thi
steam clea
etc. Take
copper tub
1/2-in. cop
clamp the
flowing thr
tainer and

Val

By Jo

This har
made from
booster wi
the shaft
the top an
washer on
measures 4
The top is
thick. Aro
eter and
side and

Gre

By

To spee
First rem
Jack the
center of
gun greas
off. It sho

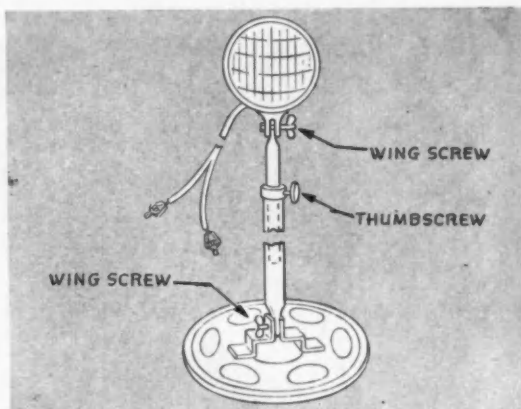
Sho

Here is
an openin
it against
steel. Sn
affecting
or weldc

Fog Lamp Makes Handy Service Light

By Dennie Dennison, Brockway Motor Co., Roanoke, Va.

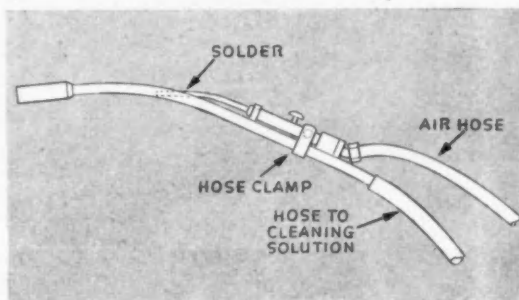
Here is a handy, battery-operated service light for use at night on tow trucks and service cars. To make this light, I took an old fog lamp and fastened it to the extension arm of a truck mirror with a bolt and wing nut. A small piece of flat iron was welded to the mirror arm holds a set screw, permitting easy height adjustment. The base is an old clutch adjusting plate about 10 in. in diameter. To this has been welded two short strips of iron, as shown, to hold the mirror arm with another nut and wing bolt for maximum flexibility. About 40 ft of double conductor cord complete the set-up.



Air Nozzle Used for Solvent Spray

By Gene Chenette, IHC Garage, Waterloo, Iowa

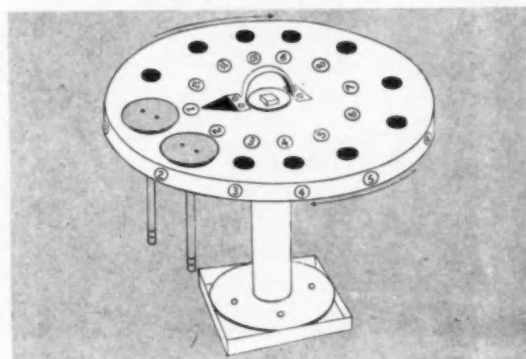
I find this air-operated solvent washing machine next best to a steam cleaner for washing engines, brakes, differentials, wheels, etc. Take an old air nozzle and fasten a 6 in. long piece of 1/4-in. copper tubing to the end. Then insert the tubing into a piece of 1/2-in. copper tubing 2 ft long. Solder or braze the joint and clamp the air nozzle to the 1/2-in. copper tubing as shown. Air flowing through the nozzle will pull cleaning solution from a container and eject it with sufficient force for a good cleaning job.



Valves Kept Clean While Grinding

By John Perez, Wells Fargo Armored Service, New York City

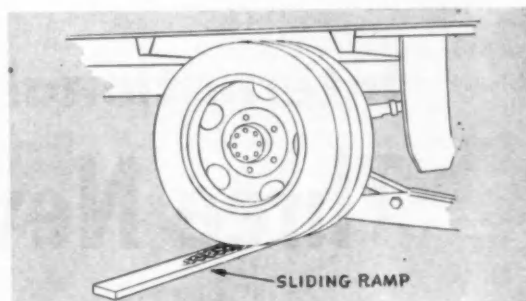
This handy stand to keep valves clean while grinding them is made from the shaft and shaft housing of an old Weatherhead booster with 10-in. diaphragm. The housing is 7 1/4 in. long and the shaft 7 3/8 in. long. A 3/8-in. bolt, 8 7/8 in. long, goes through the top and fastens at the bottom with a nut, using a large flat washer on both ends. The base is of 1/2 by 1/8-in. flatiron and measures 4 1/4 in. square and is welded to the base of the housing. The top is of wood and measures 11 1/2 in. in diameter and 3/4 in. thick. Around the outside edge, I drilled 12 holes 1/2 in. in diameter and numbered them with window screen numbers on the side and top.



Greased Bar Speeds Wheel Removal

By G. C. Favinger, State Roads Commission, Easton, Md.

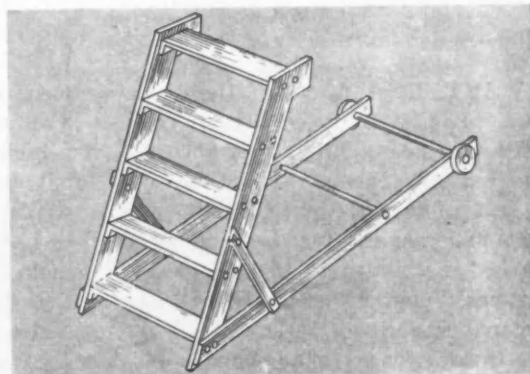
To speed removal of rear dual wheel assemblies, try this method. First remove the axle shaft and the hub retaining nuts and lock. Jack the truck up high enough to slide a flat iron bar under the center of both wheels as shown. Apply some regular pressure gun grease to the top side of the bar. Then pull the assembly off. It should slide along the bar without effort.

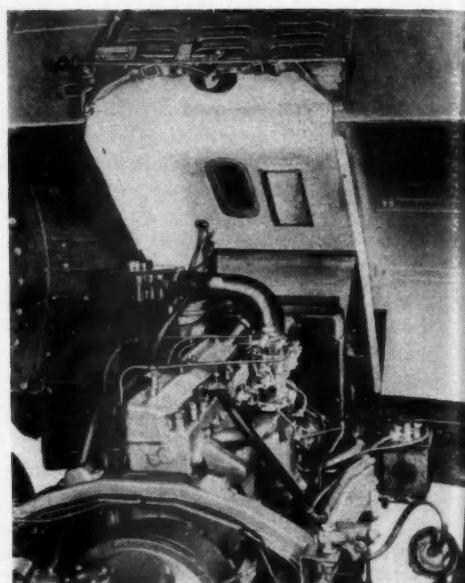


Shop-Made Ladder Protects Surface

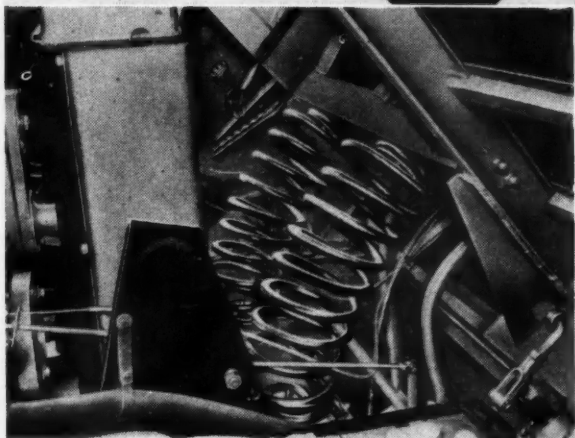
By C. H. Willey, Lake View Drive, Concord, N. H.

Here is a shop-made ladder that can be used to straddle across an opening or to work close to a truck or bus body without leaning it against the finish. It is made as shown of flat bar stock and sheet steel. Small dolly wheels were added for portability without affecting the ladder's stability. It can be either drilled and riveted or welded. Dimensions will depend on the usual work being done.





Upper left. New counterbalanced cab tilts forward to expose engine and accessories. Left. Two large coiled springs help to raise the cab, add safety feature. Safety brace holds cab in a 40-deg position. Above. One man using only one hand can raise cab for accessibility



Twelve heavy-duty models in three series incorporate refinements in COE engineering.

RRD 501-cu in. engine powers CO-200 series

International Harvester Offers Three New COE Series

INTERNATIONAL Harvester Co. has introduced three new series of heavy-duty trucks incorporating advancements in COE design. The CO-190, CO-200, and CO-220 series feature improved load distribution and capacity, power, engine accessibility and maneuverability.

In addition to refinements in cab-

over-engine engineering, including a unique design permitting the vehicle's counterbalanced cab to lift easily for service accessibility, the models feature high-torque International Red Diamond engines including the entirely new Royal Red Diamond 501 in the CO-220 series models.

Standard engine in the CO-190

series is the International Red Diamond 372. Red Diamond 406 and 450 engines are optional in CO-190 series models. The Red Diamond is standard in the CO-200 series with the Red Diamond 450 as optional equipment.

New 501 Cu In. Engine

Power plant of CO-220 series

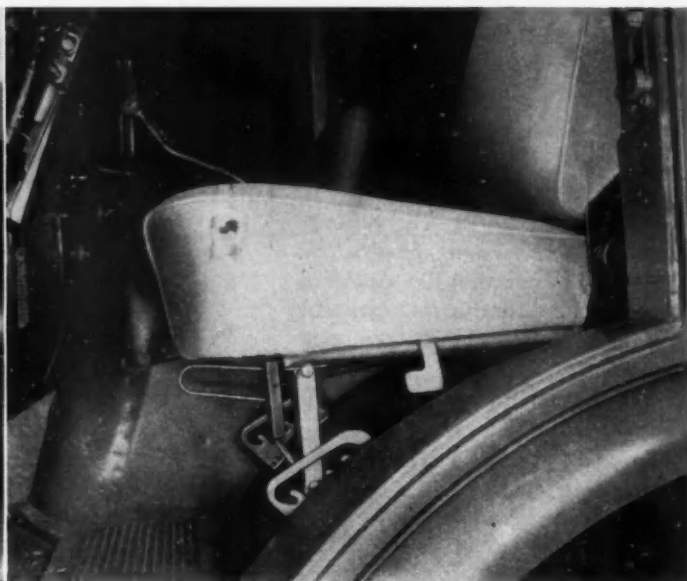
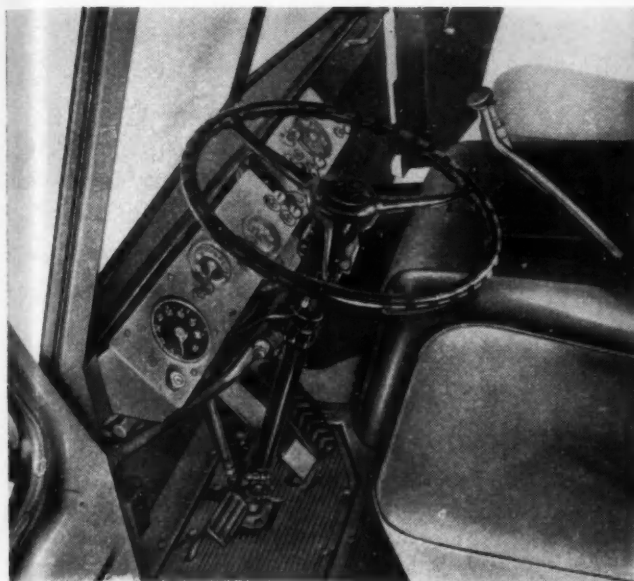
COMMERCIAL CAR JOURNAL, August, 1954



Spacious, all-proved visibility of instrument panel. Cab comfort features adjustable seat, air foam cushioning, height, buck-

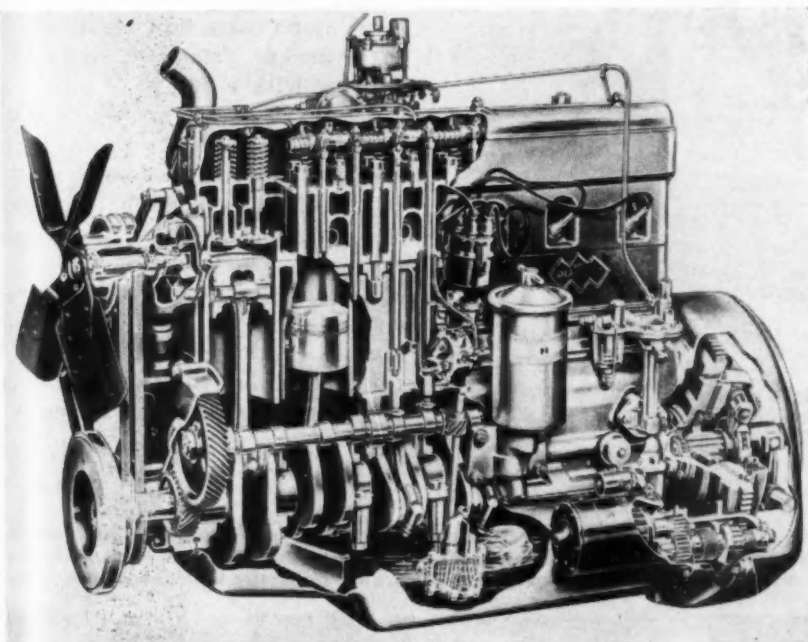


models is Red Diamond 372. Red Diamond 406 and 450 engines are optional in CO-190 series models. The Red Diamond is standard in the CO-200 series with the Red Diamond 450 as optional equipment.



Spacious, all-steel cab features improved visibility, convenient location of instruments. Above right. Cab comfort features include adjustable seat for any size driver, air foam cushions, lower floor height, bucket-type seats, full vision

Below. Cutaway view of the Royal Red Diamond 501 cu in. engine. This engine develops 201 hp at 3000 rpm and 430 lb ft torque from 1200 to 2000 rpm. Exhaust valves are sodium-cooled, stellite-faced. Carburetor is four-barrel



models can be used with standardized 35-ft semi-trailer equipment well within the 45-ft limit of many states.

28/33 Weight Distribution

Important also in International's new COE design is the weight distribution factor. Approximately 28 to 33 per cent of the gross vehicle weight of straight trucks is borne by the front axle. Normal fifth-wheel setting on the new COE tractors results in greater payload on the front axle. As a result, payload gains are made possible.

New geometric steering, combined with wider-tread front axles, provides for easier handling, greater stability, and a shorter turning radius. Roller-bearing, cam-and-lever steering gears provide easy, positive control at all speeds and likewise contribute to maneuverability.

One Man Tilting

Cabs are of all-steel construction, with a design that advances both unit service accessibility and driver and mechanic safety. Cab assembly, with controls remaining in place, tilts forward easily, exposing the entire power plant and cooling system for servicing. Because of the special spring counterbalancing device, it is possible for a man using only one hand to tilt the cab forward after releasing three safety locks, which secure the

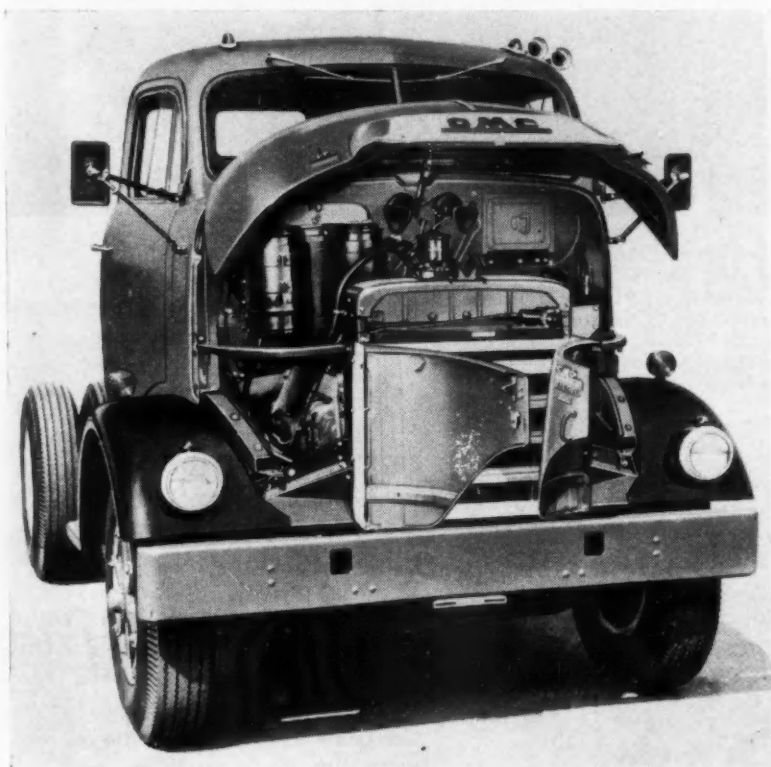
(TURN TO PAGE 148, PLEASE)

models is the new 501-cu-in Royal Red Diamond which develops 201 hp at 3000 rpm and 430 lb-ft maximum torque at 1600 rpm. Carburetor of this newest and most powerful Red Diamond engine is of the four-barrel type with integral mechanical-vacuum governor. Cylinder block is of a special close-grained alloy, precision set.

Exhaust valves are sodium-cooled, stellite-faced, slo-roto type.

Functional design of the new COE models features a 78½-in. bumper-to-back-of-cab dimension, making them especially adaptable for tractor-trailer service in areas where regulations limit overall length. In over-the-road operation, the short-coupled cab-over-engine

"Stripaway" System Speeds GM



Hood lifts up and side doors swing open in only 9 seconds, exposing the entire front of the engine for service and repairs

Disengaging the seat lock, the mechanic swings the counterbalanced seat up and back until it is close to the ceiling of the cab



84

INTRODUCTION of a dramatic "Stripaway" system of accessibility in COE trucks, said to make it possible for a mechanic to lay bare every important above-frame part and accessory of the engine in 31 seconds has been announced by GMC Truck & Coach Division. Said to combine complete accessibility with the proven safety features of a rigidly fixed cab, this system becomes standard equipment at no extra cost on all GMC COE models from five tons up, starting with F-360.

The Stripaway feature, providing full accessibility with such ease, has made it possible to shorten the distance between the front of the bumper and rear of the cab on new models, thus increasing the utility of COE tractors where maximum payload is essential within overall length restrictions.

Heart of the "Stripaway" cab is a system of counterbalancing of

Turning four quick release bolts, he lifts engine cover to uncover the top of the engine. Quick-release bolts also hold the floorboards in place



COMMERCIAL CAR JOURNAL, August, 1954

Simp
abov
New
mod

seats, perm
up out of
the ceiling
chanic to f
remove the
access to t
Floorboard
ed on a tra
readily. TH
ly removed
release fas

Close up o
and side d
neck, dip st



COMMERCIAL

ds GMC COE Service

Simple steps permit mechanic to lay bare

above-frame parts and accessories in 31 seconds.

New COE design is standard on all GMC COE

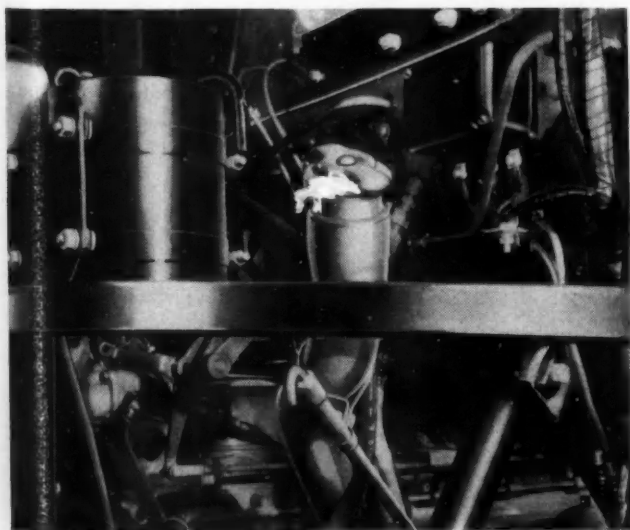
models from five tons up, starting with F-360

seats, permitting them to be slid up out of the way flush with the ceiling. This allows the mechanic to fold back two floorboards, remove the hood, thus providing access to the rear of the engine. Floorboards are hinged and mounted on a track so they can fold back readily. The engine cover is quickly removed by removing four quick-release fastenings. Tests indicate

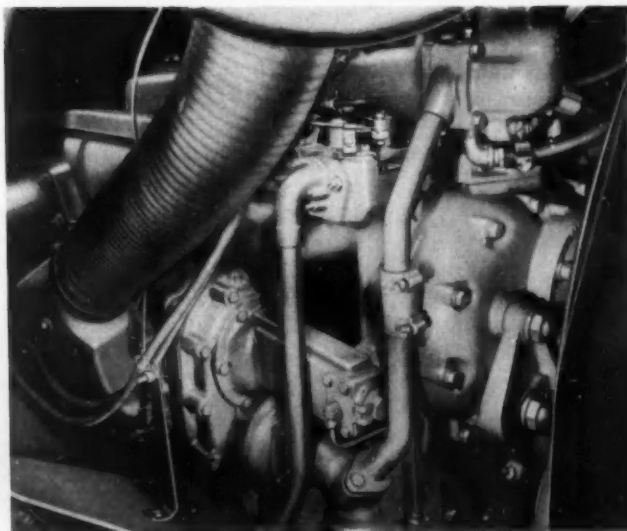
that a mechanic familiar with the procedure requires only 22 seconds to fold up the seats, fold back the floorboards, and remove the engine cover.

Similarly, quick access to the front compartment is provided by opening the hood top. The two side doors also fold open, thus requiring only about 9 sec for the entire front opening.

Close up of the left front of the engine after hood and side door have been opened. Regulator, oil filler neck, dip stick, compressor and fan are readily accessible



"Stripaway" view of the right front of the engine shows accessibility to blowers, intake hose, governor and oil cooler. Engine is 6-cyl. 225 hp diesel on all models



Short Dimension Cabs

Five of six new models offered by GMC are in the largest size, the 900 series. All have the 6-cyl GM diesel engine which develops 225 hp, offer such weight-saving features as aluminum axle housings, heat-treated frames and light-weight wheels.

Both COE models have a shorter, 72-in. bumper-to-back-of-cab measurement which allows them to haul two 24-ft trailers or a 22-ft body and a 28-ft trailer in western states having 60-ft length limits. These are models DF 920-67, rated at 31,000 lb GVW and 65,000 lb GCW; and DFW 950-67, a tandem axle model rated at 42,000 lb GVW and 70,000 lb GCW.

New conventional models are 7 in. shorter from bumper-to-back-of-cab than previous 900 series GMC models, permitting greater payloads. They are: Model D 930-67, offering a GVW of 30,000 lb and 65,000 lb GCW; Model DW 950-67, a tandem axle unit with 42,000 lb GVW and 70,000 GCW; and DW 970-67, a tandem axle unit with 57,000 lb GVW and 90,000 lb GCW.

The other new model is FW 630-50, a light weight, COE tandem-axle unit with 40,000 lb GVW and 70,000 lb GCW. It is powered by the GMC 503-cu in. gasoline engine developing 200 hp.

New PRODUCTS

The latest developments in parts, accessories, tools and equipment for the fleet field, described in brief for your convenience

P1. Brake Safety Signal

From: Monroe Standard, Inc., Galion, Ohio.

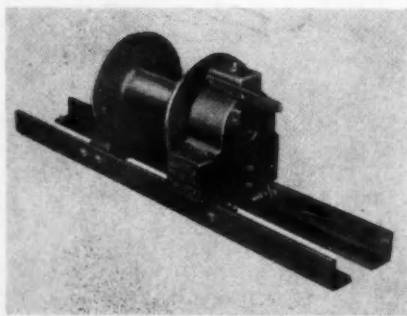
Indicator warns drivers of low vacuum in vacuum brakes. "Sure-Vac" mounts above the windshield in an horizontal position until vacuum drops below safe mark, then a warning arm drops into the driver's field of vision. It resets itself when there is safe operating vacuum.

P2. Truck Winches

From: Gar Wood Industries, Wayne, Mich.

Two new 7000-lb truck winches for standard and low mounting have been announced. Standard mount winch Model No. 7S is designed for installation behind truck cabs. Low mount winch Model No. 7L mounts in front or at rear of truck chassis, or back of cab. The low mount winch, a space saver, allows the entire truck platform to be used for the payload.

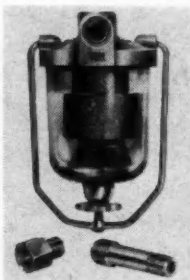
The capacity of the winches makes them suitable for use by municipalities, utilities, draymen, farmers and for light-duty wrecker use and material handling applications. Both winches are of the worm gear, jaw-clutch drum type, designed for slow, heavy pulls.



P3. Fuel Filter

From: Kem Mfg. Co., Inc., Fairlawn, N. J.

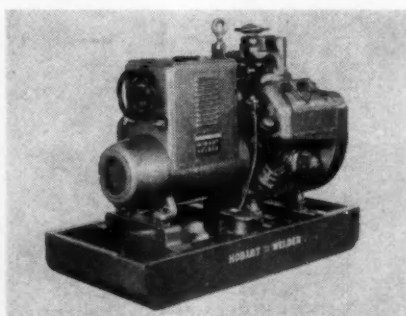
One of the main features of this new fuel filter is a micro-bronze filter element which blocks passage of foreign particles to the carburetor. Because of the large filtering area of 5.7 sq in., there is no restriction of fuel passage. This bronze filter element is designed not to shed particles into the filtered fuel.



P4. DC Arc Welder

From: Hobart Brothers Co., Troy, Ohio.

An addition to the company's line, this 250-amp DC arc welder features a 4-cyl, air-cooled engine. The generator is the multi-range type, with slight modifications to provide less bulk, lighter weight, and low cost in equipment where such factors are more important than some of the less essential conveniences provided in larger models. It is directly connected to an air cooled, industrial type Wisconsin Model No. VF4 engine.



P5. Anti-Freeze

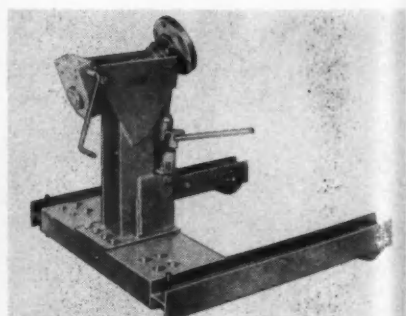
From: Randall Products Mfg. Co., New York City.

Packaged by the American Monomer Corp., Leominster, Mass., this permanent-type anti-freeze (ethylene glycol) comes in one gallon and 54-gal containers. Trade marked "Fleet-line," the anti-freeze, says the maker, is a thoroughly homogenized product. The inhibitor will not separate and remains permanently in solution.

P6. Engine Work Stand

From: Bacharach Industrial Instrument Co., Pittsburgh, Pa.

Using this engine work stand, that combines the advantages of end roll-over operation and bench-level working height, a mechanic can raise or lower an engine weighing up to 5000 lb by one simple operation without help, or use of auxiliary equipment. Designed for side mounting of an engine, the stand permits rotating the engine 360 deg in a vertical plane simply by hand operation of a crank which operates a 60-to-1 ratio worm and drive gear that revolves a heavy duty spindle. The spindle is hinged and can be tilted up with the stand's hydraulic jack to provide the required swing radius for the engine.



P7. Heavy

From: AL Inc., Hatboro, Pa.
Complete flers and trucks with gas engines types, called



the "ATI S cial "ATI D heavy duty, steel units. neered and umetric rat muffer as w ratios betwe muffler diam

P8. Ridg

From: E Akron, Ohio

This ridg the center of tighten the the rear do spreader ba combination spreader ba aging water A special m

P9. Radi

From: M wood, N. J.

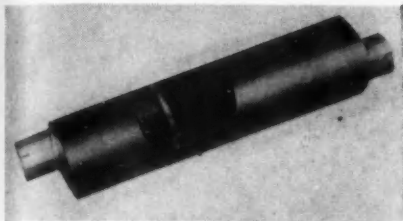
Radiator t sists of a ru a work plat lowered by c form and co can be easi without hea operator. A vided with manufacture ping radiato



P7. Heavy Duty Mufflers

From: Alexander-Tagg Industries, Inc., Hatboro, Pa.

Complete line of heavy duty mufflers and accessories for buses and trucks with gasoline, diesel or LP gas engines comes in three basic types, called the "ATI Power Guard,"



the "ATI Sound Sentry" and a special "ATI Diesel" muffler. They are heavy duty, heavy gage, all-welded steel units. They are designed, engineered and specified to optimum volumetric ratios between engine and muffler as well as ideal cross sectional ratios between exhaust pipe size and muffler diameters.

P8. Ridge Rope Ratchet

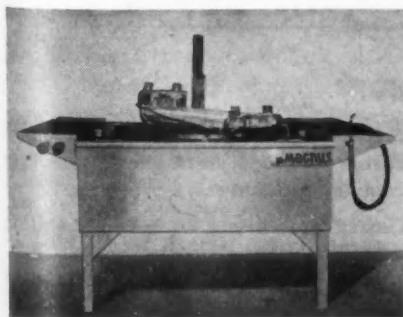
From: East Akron Ratchet Co., Akron, Ohio.

This ridge rope ratchet mounts on the center of the trailer nose, serves to tighten the rope that stretches from the rear door frame and across the spreader bars of roofless trailers. The combination of the tight rope and spreader bars prevents cargo-damaging water pockets in the tarpaulin. A special mounting block is available.

P9. Radiator Tank

From: Magnus Chemical Co., Garwood, N. J.

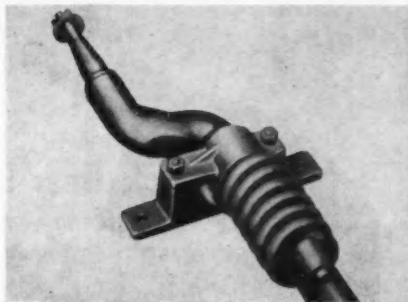
Radiator test and repair stand consists of a rugged tank provided with a work platform that is raised and lowered by compressed air. The platform and core can be rotated so leaks can be easily spotted and repaired without heavy manual labor by the operator. A similar type outfit, provided with heating coils has been manufactured for cleaning and stripping radiators.



P10. Trailer Axle

From: Prior Products, Inc., Dallas, Texas.

"Prior-Linco Level-Load" trailer axle is a one-piece forged axle with a torsion spring wrapped around the axle. Mounting brackets are mounted on the axle. The spindle is offset to provide the spring action. Advantages claimed include equalized weight on both springs, easy mounting—only four bolts, and minimum



maintenance. Two friction bearings with renewable friction inserts assist in controlling spring action, smooth the ride. Brakes can be installed on the axle.

P11. Head Bolt Wrench

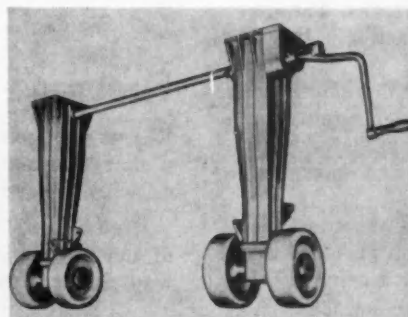
From: Owatonna Tool Co., Owatonna, Minn.

Specially designed for 1954 Ford engines, two wrenches are designed for torquing all head bolts and to provide necessary clearance to reach the bolt regardless of position. Smaller of the two fits those in center of the engine while the larger works on head bolts under the manifold. Both have standard 1/2 in. sq drive.

P12. Landing Gear

From: Binkley Mfg. Co., Warrenton, Mo.

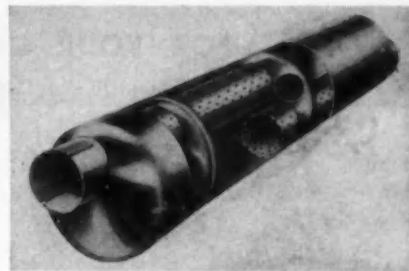
Fabricated entirely from alloy steel, this new Model No. 26000 landing gear will carry a load of 40,000 lb with a 25 per cent safety factor. It has a 16 in. travel. It is top mounted instead of side mounted, said to result in reduced trailer weight and easier mounting.



P13. Heavy Duty Mufflers

From: Maremont Automotive Products, Chicago.

Complete line of heavy-duty mufflers for gasoline and diesel-powered trucks are made with all internal parts, including inlet and outlet tubes and all internal supports, of heavy



gage aluminized steel. This steel defies the 1250-degree heat and the corrosive action of water and acids present in every truck exhaust system.

P14. Distributor Tool

From: Rinck-McIlwaine, Inc., New York City.

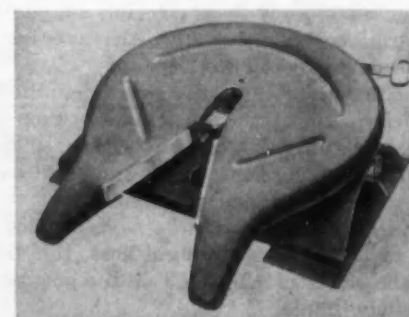
"Two-in-one" tool for late model Chevrolet distributors has an 11/32 "spin type" socket on one end for the outer hex nut. The other end is round and fits the inner round slotted nut. Both ends are hollow for bolt clearance. A cross bar provides leverage.

P15. Fifth Wheel

From: Snyder Tank Corp., Buffalo, N. Y.

Main feature of the new semi-automatic "Slack-Proof" fifth wheel is its locking device that contains only two moving parts, which is said to eliminate slack yet always allow free and easy movement around the pin and constant takeup without binding. A double safety catch in the handle prevents accidental uncoupling of the wheel and dropping of loaded trailer. It weighs 275 lb. The locking handle is easily accessible for side operation. It is only necessary to move the handle

(TURN TO PAGE 166, PLEASE)



Free PUBLICATIONS

FOR YOUR CONVENIENCE USE THE POSTCARD ON PAGE 86

L1. Driver Safety Booklet

"The Case of the Accused Driver" is the title of this full-color booklet especially aimed at instructing the driver in what to do and how to do it should he become involved in accident. Using comic book technique, it spells out clearly the importance of driver courtesy towards others involved in the accident, proper co-operation with the investigating police, full information about accident details, witnesses, measurements and other facts needed to correctly determine responsibility for the accident.

For a single copy of this booklet and information on how to obtain sufficient copies for your drivers, circle L 1 on the postcard on page 86.

L2. Public Relations Manual

While especially written for city delivery fleets, this public relations manual should be read by every fleet operator. It assumes fleet users are aware of the importance of good public relations, explains how to go about getting the best public relations cooperation from drivers.

It is brief but packed with easily understood facts. Written with truck distribution of beer in mind, it opens with the basic idea that when the driver gets his truck in trouble, the whole industry gets a black mark. It goes on from there to tell how trucks and their drivers can create public good will.

Says the Private Truck Council of America, this book contains "excellent suggestions for steps that can be taken to improve public relations . . ." To get your copy, circle L 2 on the postcard on the preceding page.

L3. Dangerous Articles Guide

This guide book is a compilation of ICC requirements and standard operating procedures which can be adopted for almost any fleet carrying dangerous articles. The material covers completely the average operation. It was prepared by ATA's Dept. of Safety.

Its various sections cover definitions of dangerous articles, labels, placards, markings on shipments, shipping papers, waybills and manifests, dispatcher instructions, driver instructions, loading and unloading, and emergency handling of dangerous articles.

Illustrations in the 34-page booklet show various types and uses of fire extinguishers, the different placards and labels needed. Circle L3 on the postcard for a copy of this handy guide.

L4. Gear Lubrication Data

This interestingly presented, technical discussion of gear lubrication characteristics applies to automotive uses as well as industrial applications.

The section on gear failure opens with six possible basic reasons for gear failure then analyzes proper lubrication. Fleetmen will find especially handy a complete series of 20 illustrations showing different types of gear failure, classifying them under (1) wear, (2) plastic yielding, (3) welding, (4) surface fatigue, (5) surface deterioration and (6) tooth breakage. Each picture has a brief caption explaining the cause of the failure.

Circle L 4 on the postcard on page 86 for a copy.

L5. LP Gas Folder

The purpose of this brief and interesting folder is to present a simple, straightforward explanation of the reasons why LP gas can be an ideal fuel for trucks, buses and fork lift trucks. It lists nine basic reasons for the use of LP gas, and is well illustrated. While it limits itself to presenting the case for LP gas, fleetmen will find it a handy folder to have when considering possible use of the fuel. Circle L 5 on the postcard for a copy.

L6. Hoist Selection Guide

Announced as the first available, these two publications cover (1) hoist classification and selection and (2) a glossary of terms used in hoist and steel dump body description.

The classification chart opens with a table that permits converting body length in feet and net capacity in tons to standard hoist classifications. A second chart permits comparison of various manufacturers' model numbers with standard hoist classification.

To obtain your copy of these handy guides, circle L 6 on the postcard on page 86.

Fleetman's Library

Recent publications of interest to fleet operators for which a charge is made and new catalogs, data sheets and fleet experience reports from manufacturers. . . .

Highways in the United States is a brand new edition of the Bureau of Public Roads basic publication on highway finance, growth, and use. This 24-page basic data

(TURN TO PAGE 140, PLEASE)



Great Dane Pre-Fab All-Aluminum Bodies Offer New Economies to Small Truck Buyers

—The advantages of aluminum

—The savings of mass production

The *Titan*, latest addition to the Great Dane line of trailers—manufactured by Great Dane Trailers of Savannah, Georgia.

The creators of the famous Great Dane line of trailers have once again pointed out the extra operating profits in aluminum construction—regardless of fleet size—through the introduction of their new *Titan* truck body. Mass production methods have helped them slash manufacturing costs; and by shipping complete but unassembled “kits” to their distributors, they eliminate factory assembly time and cut shipping costs.

Great Dane uses Alcoa® Aluminum throughout the packaged *Titan* because they have found, after many years of experience, that

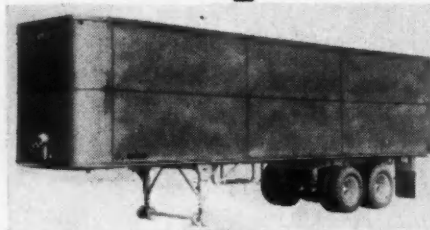
Alcoa means a complete range of sheet, plate, structural shapes and extrusions. And by using these, Great Dane can continue to provide lightweight equipment that offers maximum strength with maximum economy . . . lighter, fuel-saving units that cost less to operate—less to maintain. ALUMINUM COMPANY OF AMERICA, 1876-H Alcoa Building, Pittsburgh 19, Pa.

ALCOA 
ALUMINUM

ALUMINUM COMPANY OF AMERICA

Customer Individualized Design

- ☐ 1. Panels--extruded aluminum, smooth steel, or
- ☐ 2. Doors--rear doors with extruded frames and w
- ☐ 3. Brakes--super stop safety brakes

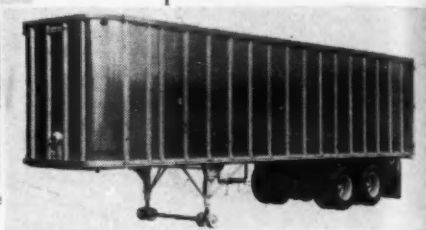
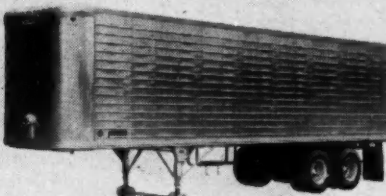


new design on 12-in. centers
hat-shaped steel or aluminum
ree-ply 1/4-in. plywood
tongue and groove--extruded aluminum--or one piece aluminum plate

ars--1
tandem
n rock

t increments

- ☐ 11. Landing gears--t
- ☐ 12. Lights and wiring
- ☐ 13. Corners--6-in. r
- ☐ 14. Bumpers and flap
- ☐ 15. King pin--set in any location from 18 to 48 in. in 2-in. increments



TRAILMOBILE ANNOUNCES Custom Designed Trailers

Fleetmen can now select the specific features they require in new trailers, thanks to this new CID program

TRAILMOBILE truck-trailers hereafter will be designed by the men who own and operate them, not by the manufacturer.

This new concept of truck-trailer designing has evolved after months of preparation of basic patterns and of the many alternative parts and accessories from which trailer-buyers will select the exact features they want in their individual trailers. "C.I.D." or "Customer Individualized Design" is the term that Trailmobile applies to this radical departure from previously-accepted methods of truck-trailer production. Under this new policy customers will specify materials, fea-

tures, length, weight, and a wide range of options from the C.I.D. list. This will give them trailers, with a predictable future, with a maximum of "usable cube" in interior content, with the right balance of strength to weight, with new ruggedness and economy of operation -- all incorporated in a design built to fulfill their individual preferences, and at lower prices.

No Excess Baggage

Under the C.I.D. program, a customer will have his choice of trailer sides, fronts, nose caps, floors, underframes, linings, king-pin location, suspensions, landing gears,

and front radii. Trailers ordered on this basis will often cost less than ordinary production line trailers as the customer can specify exactly the materials, features, and options he needs and will not pay for any that he doesn't require.

All Trailmobile sales and service branches will carry complete stocks of all parts to service and repair C.I.D. trailers and all mechanics have been specially trained under the new program.

The following features will be available under the new selection system:

1. Extruded aluminum quarter (TURN TO PAGE 144, PLEASE)

Take
—he
essen
vehic
safet
rate
gain
the c



Each d
placed
graph.
record
this cha
vital o
formati

- When
- How
- When
- How
- When
- Dist
- betw

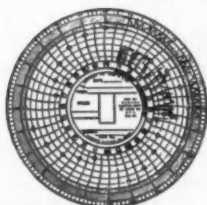


"Tachographs..."

...are essential equipment and are installed on every one of our 225 vehicles."

— says: R. J. Davis, Vice President
Sprout & Davis, Inc., Whiting, Ind.

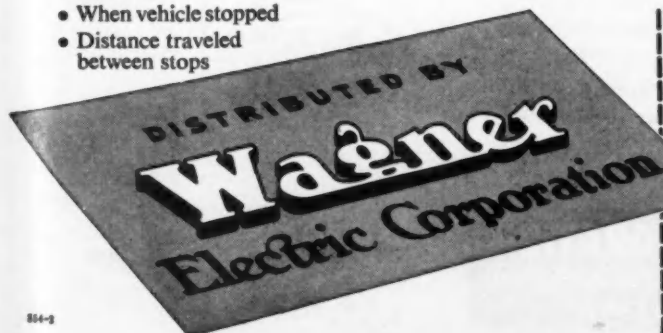
Take the advice of R. J. Davis of Sprout & Davis, Inc. —he knows from experience that Tachographs are essential for maximum road safety and profitable vehicle performance. Year after year more and more safety-minded over-the-road haulers rely on the accurate trip information Tachographs provide. You can gain these same benefits by installing a Tachograph in the cab of every vehicle in your fleet.



Each day a chart is placed in the Tachograph. A permanent record is registered on this chart giving such vital operational information as:

- When engine started
- How long engine idled
- When vehicle was in motion
- How fast vehicle traveled
- When vehicle stopped
- Distance traveled between stops

Tachographs are precision engineered for accurate recording. Housed in a durable aluminum case, they may be mounted right on the dash and connected directly to the speedometer cable. Clock face, speedometer, and odometer are illuminated for added convenience. Instruments are available in two types: MPH and RPM. Be "profit-dollars" ahead with the savings Tachographs make possible in fuel, time, and general maintenance costs. Full details are available in Wagner Bulletin SU-3. Mail coupon below for your free copy, today. No obligation of course.



SPROUT & DAVIS, INC.
2900 KANSAS AVENUE
Whiting
INDIANA

Wagner Electric Corporation
6400 Plymouth Avenue
St. Louis 14, Missouri

Gentlemen:

Many years of experience in transporting petroleum products in Illinois, Indiana, Michigan, and Wisconsin have taught us to insist on extra safety factors and high standards of performance. Much of the success Sprout & Davis, Inc. enjoys is due to the valuable trip information your Tachographs provide in our operations. Tachographs help set up routes and schedules and from the charts we are able to assemble the necessary data on time and mileage.

Sprout & Davis, Inc. drivers like using Tachographs. They have no trouble correctly inserting the charts and they like the ease of reading the illuminated clock, speedometer, and odometer. The red warning signal indicator also helps our drivers maintain a 45 M.P.H. speed limit for greater road safety.

Tachographs are essential equipment and are installed on every one of our 225 vehicles because they accurately record the facts we want to know.

Sincerely yours,

R. J. Davis
R. J. Davis
Vice President

Wagner Electric Corporation

6476 PLYMOUTH AVE., ST. LOUIS 14, MO.

Please send a copy of Bulletin SU-3.

Name and Position _____

Company _____

Address _____

City _____ State _____

We operate _____ Vehicles
(NUMBER)

Uniform Code Changes Affect Brakes, Lights, Speed

CONVENING at the Chamber of Commerce of the United States recently, the National Committee on Uniform Traffic Laws and Ordinances—the model-law drafting group of the White House Conference on

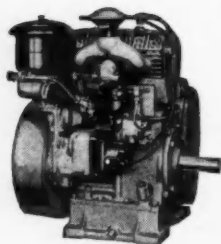
Highway Safety—amended lighting, braking, maximum speed and driver licensing requirements in the Uniform Vehicle Code, the nationally accepted guide for motor vehicle legislation among the States.

WISCONSIN-POWERED THERMO-KING "North ★ Star" Refrigeration Unit



KEEPS IT COLD!

The compact Thermo-King North Star series, shown here, is designed primarily for truck bodies. The unit is also available in a combination gas engine-electric motor model.



Wisconsin Model AEND 2-cylinder Heavy-Duty Air-Cooled Engine, which powers the above Thermo-King refrigeration unit, is supplied with Stellite-faced exhaust valves and valve seat inserts and positive type valve rotator for long engine life with minimum servicing. Equipment also includes 6-volt starter, oil bath air cleaner and centrifugal clutch.



Here's a reefer cargo that can't take chances on transit-softening or melting! And the responsibility for delivering the merchandise in perfect condition is shared equally by the Heavy-Duty Wisconsin Air-Cooled Engine and the dependable Thermo-King Refrigeration Equipment, made by U. S. Thermo Control Co., Minneapolis, Minn.

Automatic temperature control keeps the engine running at correct speed to suit most exactly the cooling requirements of the refrigerated cargo. Adjustable thermostat can be set to maintain any desired temperature.

This type of engine performance calls for dependable power that doesn't stall in the top-load pinches. And that's the kind of "Lugging Power" you get from all Wisconsin Engines. Whether supplying continuous power either on a constant-load or variable load basis, your Wisconsin Engine has the inherent stamina that hangs on and keeps the equipment running at maximum efficiency. You can't do better than to specify "Wisconsin Engine Power" for your equipment. Available in a full range of types and sizes from 3 to 36 hp. — 4-cycle single cylinder, 2- and 4-cylinder models. Write for Bulletin S-154.



WISCONSIN MOTOR CORPORATION
World's Largest Builders of Heavy-Duty Air-Cooled Engines
MILWAUKEE 46, WISCONSIN

The principal changes made were:

1. Five exclusive use categories were assigned to warning lights on motor vehicles, namely:

Low candlepower, steady burning, with one or more lamps displaying white or amber light to the front and red light to the rear: for parking and tail lights

High candlepower, steady burning, with one or more lamps on the rear displaying red to amber light: for braking lights

High candlepower, flashing to one side only at any time, lamps showing white to amber light to the front and lamps showing red to amber light to the rear: for turn signals

High candlepower, flashing alternately, two or four lamps mounted as high as practicable and displaying red lights to the front and to the rear: requiring other traffic to stop and usable only on school buses and authorized emergency vehicles, such as fire and ambulance, with optional use on police vehicles

High candlepower, flashing simultaneously, lamps displaying white to amber light to the front and lamps displaying amber to red light to the rear: for vehicular traffic hazard warnings requiring the exercise of unusual care in approaching, overtaking and passing

High candlepower flashing lights are to be as widely spaced laterally as practicable.

2. Farm tractors, farm equipment and implements of husbandry operated on public highways at night must have specified lighting equipment in use.

3. An absolute maximum speed of 60 miles per hour, with 50 miles per hour at night for all vehicles, replaces prima facie limits. Lower limits are provided for urban and zoned areas.

(TURN TO PAGE 94, PLEASE)



Full-Flow Spring

-another reason why

Sealed Power KromeX

Piston Ring Sets deliver the world's best
**ALL-AROUND PERFORMANCE
FOR THE MOST MILES!**



Sealed Power's exclusive Full-Flow Spring, which is part of the MD-50 Steel Oil Ring in every KromeX Ring Set, is a prime factor in the immediate oil control for which these sets are famous. Twice as many slots, so no piston oil hole can be blocked, no ring slot can be blocked, and a full flow of oil is assured through ring, spring, and piston oil holes, back to crankcase. Even curves produce even distribution of pressure for longer wear and easier starting, even in badly tapered and out-of-round bores. No other piston ring set can match Sealed Power KromeX results!

SEALED POWER CORPORATION, MUSKEGON, MICHIGAN

Sealed Power Piston Rings

BEST IN NEW TRUCKS! BEST IN OLD TRUCKS!

Sealed Power Motor Parts—The Heart of the Engine • Rings, Pistons, Pins, Sleeves, Valves, Water Pumps

Uniform Code Changes

Continued from Page 92

4. An applicant for a driver's license in any State must certify that he does not hold a currently valid driver's license issued by another State.

5. Stopping distances in feet for motor vehicles upon application of the service (foot) brake were lowered for private passenger automobiles

and raised for trucks and buses for the purpose of bringing them into line with reasonable standards and to facilitate stricter enforcement.

Brake Performance

The following brake requirements were adopted:

Every motor vehicle or combination of vehicles, at any time and under all conditions of loading, shall, upon application of the service (foot) brake, be capable of (1) stopping, (2) decelerating and (3) developing a braking force equivalent to such

deceleration according to the following minimum requirements:

	Stopping Distance (feet)	Deceleration (ft. per sec. per sec.)	Equivalent Braking Force (% of vehicle or comb. weight)
Passenger vehicles, not including buses.....	25	17	53.0%
Single unit vehicles with a manufacturer's gross vehicle weight rating of less than 10,000 lbs.	30	14	43.5%
Single unit, 2 axle vehicles with a manufacturer's gross vehicle weight rating of 10,000 or more pounds	40	14	43.5%
All other vehicles and combinations with a manufacturer's gross vehicle weight rating of 10,000 or more pounds	50	14	43.5%

All tests shall be conducted on a substantially level (not to exceed a plus or minus one per cent grade), dry, smooth, hard-surfaced road that is free from loose material. Stopping distance shall be measured from the instant braking controls are moved and from an initial speed of 20 miles per hour.

The ATA representatives, both at the Brake Subcommittee meeting and at the main committee meeting, made every effort to have the stopping distance requirement the same for all types of vehicles. The majority of both groups believed, however, that any stopping distance requirement that could be met by the heavier trucks, truck tractors and semi-trailers, and other combinations, would of necessity be far too lax for light trucks and for passenger cars.

Moreover, the majority believed that it was necessary to have both a deceleration requirement and a stopping distance requirement for all types of vehicles. It was conceded that deceleration was the only quick and practical method of determining passenger car brake performance and that a stopping distance requirement was needed, primarily for the larger and longer multi-axle vehicles.

30-ft Stopping Distance

Despite this admission, it was felt that the "30-ft stopping distance" was so generally recognized that any new requirement which either increased the stopping distance or omitted it would be interpreted as weakening instead of tightening the brake requirements.

Of course, the 30-ft stopping distance" is not really a measured vehicle stopping distance as interpreted in existing State regulations but rather a calculated stopping distance based on a braking force or on maximum rate of deceleration.



designed for the
roughest service
you can think of

Specially designed for your kind of service, Tung-Sol Truck Lamps help keep you out of trouble on the road—minimize your lamp bill. Distributors all over the country carry the complete line of Tung-Sol Truck Lamps. There's one near you. Write for his name. If you have a chronic lamp problem, write to:

Tung-Sol Electric Inc., Newark 4, N. J.

Sales Offices: Atlanta, Chicago, Columbus, Culver City (Los Angeles), Dallas, Denver, Detroit, Newark, Philadelphia, Seattle.



TUNG-SOL®
Dependable
TRUCK LAMPS

follow-

Equivalent
Braking
Force
(% of
vehicle or
comb.
weight)

53.0%

43.5%

43.5%

43.5%

and on a
exceed a
(grade),
ad that
topping
from the
moved
20 miles

both at
ing and
g, made
ing dis-
for all
rity of
er, that
irement
heavier
semi-
nations,
lax for
er cars.
believed
both a
a stop-
for all
onced
y quick
rmining
nce and
irement
larger

as felt
ce" was
ny new
reased
tted it
kening
ake re-

ng dis-
ng vehi-
rpreted
as but
istance
maxi-

at, 1954

Bendix power

STEERING AND BRAKING

increases
driver
efficiency

reduces
operating
costs

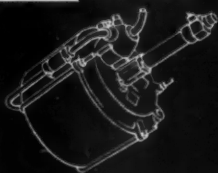


Today's most wanted power features for cars and trucks



Bendix * POWER steering

Here is an efficient, easy-to-install power steering unit that simplifies production line installation. Because Bendix Power Steering is of the linkage type, it may be adapted to any manufacturer's model without extensive engineering changes in present steering designs. Meet the increasing demand for power steering more efficiently and more economically with Bendix Power Steering.



Bendix HYDROVAC* POWER brake

With over four million in use, the Bendix Hydrovac is by all odds the world's most widely used power brake for commercial vehicles. This overwhelming preference for Hydrovac is a result of sound engineering design, exceptional performance, low original cost and minimum service upkeep. Make the industry's choice your choice, specify Hydrovac for all your commercial vehicles.



Bendix AIR-PAK* POWER brake

With one simple compact unit, Bendix Air-Pak combines all of the well-proven advantages of hydraulic brake actuation with an air brake system. An important advantage of Air-Pak is that brakes can be applied by foot power alone when braking is required before air pressure builds up or if it should fail for any reason. For faster, better controlled air-hydraulic power braking, specify Air-Pak.

*U.S. PAT. OFF.

Measured from any standpoint, trucks equipped with Bendix power steering and braking step up the efficiency of any trucking operation.

Drivers are happier, schedules are better and profits are bigger when trucks have these important features of safety and driving ease.

Remember, too, that Bendix Hydrovac and Air-Pak are performance proven by millions of

miles of actual service; and Bendix Power Steering may be adapted by any truck manufacturer to present models without extensive change in present steering design.

That's why if you build, buy, sell or operate trucks, it will pay you to make sure they are equipped with performance-proven Bendix power braking and steering.

BENDIX PRODUCTS DIVISION SOUTH BEND INDIANA



Export Sales: Bendix International Div.
205 E. 42nd Street, New York 17, N. Y.

**Bendix
Products
Division**

Jet-Type Cleaner Cuts Washing Costs

IN A petroleum product delivery fleet, keeping vehicles neat and clean can be a difficult problem. Road grime and dust cling tenaciously to the film of oil which tends to collect on the vehicles and usually require

longer to remove when the vehicles are washed.

Atlantic Refining Co. has no problem keeping units clean. Even an extremely dirty chassis can be cleaned an hour at the main shop.



WIRY JOE WIRE and CABLE

*are better products... cut costs
and improve operating efficiency*

MERCHANTS MOTOR FREIGHT INC.

St. Paul, Minn.

THE CRESCENT COMPANY, INC., PAWTUCKET, RHODE ISLAND

Several years ago, the fleet decided to experiment with a "Sellers Hydraulic Jet Cleaner." This is an extra-high pressure, industrial-type hydraulic hot water cleaning unit which is connected to the refinery's central steam plant. The unit proved effective from the start in cutting washing time and is now used for washing chassis and for preparing vehicles for painting.

Industrial Type Cleaner

Originally designed for heavy-duty industrial plant and machine cleaning, the equipment permits the washer to scrub vehicles with a high-powered, high-temperature stream of water, mixed with detergents, when required. The concentrated stream covers approximately a six-inch diameter circular area, while high velocity impact and hydraulic action scrubs the dirt from surfaces, and extends to hard-to-reach places which are otherwise inaccessible for cleaning.



The high pressure spray is used for chassis washing or for cleaning trucks prior to painting. Chassis are first sprayed with a detergent solution, brushed, then flushed off with the spray. A rough estimate is that this method does the job in approximately one-third the time needed for equivalent results using standard washing equipment.

Heart of the spray unit is the mixing chamber, which uses a venturi-injector assembly to mix steam and water in a high-pressure jet. The unit used at the Atlantic shop operates on steam pressures supplied from the central plant at pressures from 50 psi and up. (A later model, now marketed, uses plant steam pressures from 5 psi to 25 psi to produce discharge pressures ranging from 100 psi to 200 psi.) A wide nozzle is used to increase the area covered by the jet.

Spray pressure may be varied by a tap arrangement and ranges from 100 psi to 350 psi. Temperature of the spray ranges from 115 to 210 deg F. The equipment is designed so that varying quantities of detergent may be added to the spray when desired.

great

★ G
Sch

#880 Valve

Rugged brass houses the unit and is onto the valve



Tough, spec pounded molded brass plate a powerful valve mou

For

A. S.

Summer driving calls for greater tire care



★ GOOD NEWS ★

Schrader #4000 Valve Core now
has added features:

#880 Valve Cap

Rugged brass shell
houses the sealing
unit and locks it
onto the valve mouth



Tough, specially com-
pounded rubber
molded between two
brass plates makes
a powerful seal over
valve mouth



STURDIEST BRIDGE re-
sists damage from screw-
driver tools when tight-
ening or removing.

STRONGEST SWIVEL JOINT
will not separate when re-
moving core.

★ **IMPROVED PLUG GASKET**
now withstands both ex-
treme heat and cold.
Wedge fit, will not distort.

★ **SUPER SEALING SEAT**
seals under higher ten-
sion—surer airtightness—
finest heat and oil resist-
ing rubber for longest
service life.

★ **NEW HIGHER TENSION***
Stainless Steel SPRING—
improves sealing—un-
affected by heat. Spring-
at-the-bottom provides ob-
struction-free air passage
thru the top of core.

**FULL LENGTH PLUNGER
PIN**—guided top and bot-
tom. Greatest travel in-
sures easy inflation.

SPRING CUP—Specially
designed to align, anchor,
make removal easiest.

* On long cores the spring is never under
tension until core is inserted in the valve.

For extreme heat conditions use this combination:
#7612 Valve Cap and #7611 Valve Core

When highways are hot enough to cook your goose
—profitwise, that's the time to double-check your
fleet tire-air service. Keep your fleet operating at
top efficiency on certified* accurate air pressures
protected by quality Schrader Caps and Cores ...
backed by the dependability of Schrader manufac-
turing experience.

Schrader Valve, Gauge and Inflating equipment
specialists know the answers to all-weather driving.
If you have any kind of tire valve problem, describe
it to us. We'll be glad to help.

*Certify all your gauging-inflating equipment with Schrader #8106 Trutest
Special Gauge.

A. SCHRADER'S SON • Division of Scovill Manufacturing Company, Incorporated • 470 Vanderbilt Ave., Brooklyn 38, New York

Schrader

REG. U. S. PAT. OFF.

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

7830

Twin-Coach Announces 1700 lb. Parcel Delivery

TWIN Coach Co. has announced a new midget-size, multi-purpose right hand stand-drive parcel delivery truck to be known as the Fageol "Pony Express."

Especially built for door-to-door delivery service, it is also said to be suit-

able for all types of delivery operations. A fold-down seat is provided for the driver's use on long runs.

Mechanical features include independent front wheel suspension, a fully automatic torque converter-type transmission and a combination "non-



creep" and "hill-holding" device incorporated in the brake system.

Tubular Steel Frame

The "Pony Express" utilizes a tubular steel frame and special parcel delivery body designed to afford maximum strength with minimum weight.

The truck, as illustrated, is powered by a 55-hp, 4-cyl Continental engine coupled to a Detroit Gear automatic transmission.

1700 lb Load Capacity

Interior of the truck has been designed for easy access to the load area. Fitted with full-opening windows, sliding doors on each side of the vehicle permit the driver to work comfortably and conveniently. Step height, from the driver's platform to the ground, is only 12 in. A full-width, 31-in. deep shelf is provided ahead of the driver's area for sorting and carrying parcels or other items. Fast loading of cargo is made possible by two sedan-type doors at the rear of the truck.

The Model No. FPE, as illustrated, has an over-all length of 156 in. and a net weight of 2785 lb. It contains 144 cu ft of payload space and has a payload capacity of 1700 lb. Width is 69½ in., and height is 89 in. Wheelbase is 87½ in., and turning radius is 18 ft, 9 in.

Pilot models of this truck are currently being used in mounted carrier route survey work in Akron, Ohio, by the Post Office Department.



COMMERCIAL CAR JOURNAL, August, 1954

A Lot of Truck Body Serviceability "HINGES" on EberHARDWARE

A complete variety of E hinge types and sizes are available to meet the general or specific needs of truck body builders.

Job tested under the most rigorous service for long periods of time, E hinges are designed and made to present a pleasing appearance, yet "stand the gaff."



NO. 5828



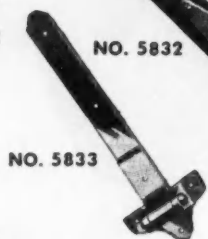
NO. 5864



NO. 5829



NO. 5832



NO. 5833



NO. 5814



NO. 5866



NO. 5813



NO. 5841

For Complete Details
get the
EBERHARD CATALOG



EBERHARD *Long Run* TRUCK BODY FITTINGS

EBERHARD MANUFACTURING CO.

Division of the Eastern Malleable Iron Co.

EVARTS AVENUE

CLEVELAND, OHIO

SQU

All the
cabs, un
chassis,

New Ca
clearanc
wheel se
capacity

New C
and me
cab; cor
45 feet
and exit
highway

SAY

COMMERCIAL

IT BE?

SQUARE-FRONT TRAILER HAULING



MACKSIMUMS

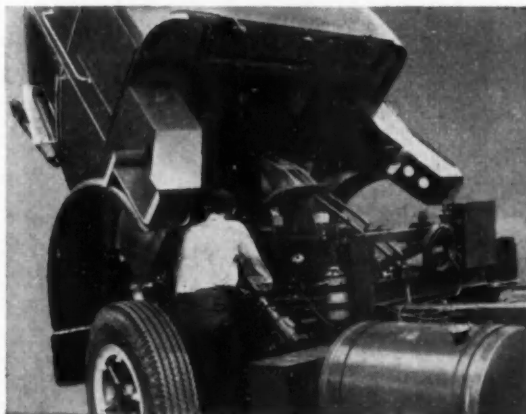
All the recognized Mack qualities remain—roomy cabs, unrivalled accessibility, rugged standard-design chassis, Mack Thermodyne engines.

New Contour Cab on conventional models provides 4½" clearance to corner of square-front trailers, even with fifth wheel set 18½" ahead of rear axle for maximum payload capacity. This clearance exceeds accepted standard.

New C.O.E. Cab accommodates three men comfortably and measures a mere 80⅝" from front bumper to back of cab; compact enough to take a 37-foot trailer in less than 45 feet. New lower design improves roadability, entrance and exit, yet maintains the superior visibility of Mack C.O.E. highway models.



Floor free of engine tunnel



Cab tilts forward at 45-degree angle

SAYS-MAXIMUM { Payloads Engine Accessibility
Cubic Volume Power
Driver Comfort Economy

2586

1954 New Truck Registrations by Makes by States*

STATE AND MONTH	Autocar	Chevrolet	Diamond T	Dodge	Ford	G.M.C.	International	Mack	Reo	Studebaker	White	Willys	All Others	Total
Alabama.....May	1	595		68	447	94	115	11		6	12	12	3	1,364
.....5 Mos.	4	2,459	5	412	2,135	488	574	35	4	45	77	56	9	6,303
Arizona.....May	2	255	2	65	275	95	44		1	6	6	28	2	781
.....5 Mos.	2	882	9	234	967	338	225	4	6	26	15	60	17	2,785
Arkansas.....May		417	3	42	422	88	76	2		12	1	6		1,070
.....5 Mos.		2,357	12	308	2,285	706	437	8	4	72	28	44	1	6,282
California.....May	6	1,927	23	440	1,897	507	341	26	6	78	35	127	65	5,470
.....5 Mos.	34	9,029	79	2,219	8,027	2,555	1,633	63	46	305	149	517	301	24,957
Colorado.....May	4	362		52	306	84	81	2	5	7	4	42	4	953
.....5 Mos.	5	1,450	4	267	1,219	432	414	20	21	44	21	154	40	4,091
Connecticut.....May	7	242	1	59	226	55	85	22	2	9	13	11	26	758
.....5 Mos.	29	927	16	266	835	253	332	76	27	46	44	58	71	2,980
Delaware.....May		87		18	51	14	30	10		2		2	3	219
.....5 Mos.	2	403	2	87	267	120	115	22		10	5	14	9	1,056
District of Columbia.....May	1	89		15	77	32	23			2	2	4	1	246
.....5 Mos.	1	298	14	59	275	74	82	7	3	5	30	14	21	883
Florida.....May		580		84	588	149	136	24	5	33	30	91	4	1,727
.....5 Mos.	5	2,881	38	595	3,143	824	712	130	51	145	177	374	40	9,085
Georgia.....May	1	1,594	2	255	1,581	355	376	13	5	86	29	28	4	4,329
.....5 Mos.	5	4,461	15	953	4,343	1,171	1,273	75	48	298	132	119	20	12,913
Idaho.....May		181		35	180	80	70	6		6	4	32	12	606
.....5 Mos.		730	2	164	652	319	247	13	3	29	10	106	21	2,296
Illinois.....May		1,227	31	235	951	189	553	8	10	49	17	38	33	3,341
.....5 Mos.	14	5,865	215	1,261	5,141	1,197	2,391	51	34	244	200	190	141	16,944
Indiana.....May	10	832	5	147	829	133	300	7	2	59	50	18	9	2,401
.....5 Mos.	23	3,760	47	803	3,457	778	1,554	37	38	285	261	95	87	11,205
Iowa.....May		810	16	116	798	113	304	3	2	32	4	5	11	2,214
.....5 Mos.	1	2,913	41	462	2,795	489	1,156	15	10	128	42	45	31	8,090
Kansas.....May		688	4	70	580	150	174		2	31	5	18		1,722
.....5 Mos.		2,579	21	362	2,358	637	774	4	6	123	39	62	5	7,020
Kentucky.....May		642	1	87	513	107	150	1	8	21	12	23	8	1,573
.....5 Mos.	2	2,600	19	373	2,313	563	587	18	22	73	68	111	37	6,786
Louisiana.....May		590	1	72	583	139	140	8		25	7	10	2	1,578
.....5 Mos.		2,991	16	515	2,858	702	722	27	4	116	55	115	12	8,133
Maine.....May		182	2	36	212	70	54	13		13	17	28	2	629
.....5 Mos.		614	6	149	603	211	156	25	3	38	27	83	7	1,927
Maryland.....May		258	1	277	226	58	48	24	1	12	9	7	3	824
.....5 Mos.	10	1,435	7	674	1,298	313	387	80	10	36	49	39	38	4,378
Massachusetts.....May	14	413	10	139	516	97	148	34	14	13	36	23	25	1,482
.....5 Mos.	41	1,586	24	506	1,947	361	476	108	62	81	142	127	97	5,560
Michigan.....May	2	1,031	12	206	1,106	226	175	18	12	18	24	28	13	2,671
.....5 Mos.	20	5,352	58	1,242	5,598	1,152	854	58	63	113	158	149	153	14,870
Minnesota.....May		585	4	128	560	146	279	6	1	39	3	26	4	1,783
.....5 Mos.		2,508	20	503	2,442	598	1,069	29	16	108	32	92	46	7,463
Mississippi.....May		620		58	482	100	109	2		8	1	10	1	1,381
.....5 Mos.		2,930	1	303	2,386	706	576	12		68	6	44	3	7,037
Missouri.....May		978	6	140	777	206	247	4	2	15	35	13	2	2,425
.....5 Mos.		4,128	23	692	3,505	1,080	1,107	50	17	147	139	78	36	10,982
Montana.....May	1	176	1	30	191	52	77	2	1	13	2	23	7	578
.....5 Mos.	1	887	5	163	814	301	380	11	3	57	11	153	14	2,800
Nebraska.....May		412	6	50	333	72	166	1		23	2	20	3	1,090
.....5 Mos.	3	1,789	46	248	1,679	429	730	15	3	67	36	119	36	5,180
Nevada.....May		43		7	48	32	3			7		7	1	148
.....5 Mos.		217		51	236	103	45	5		22	1	27	2	709
New Hampshire.....May		106	2	21	112	26	31	3		1	4	3	1	324
.....5 Mos.	4	445	4	108	399	113	115	22	8	21	9	16	18	1,302
New Jersey.....May	5	652	18	202	639	196	178	35	2	28	42	28	61	2,088
.....5 Mos.	40	2,765	60	768	2,827	979	875	206	23	136	229	94	240	9,242
New Mexico.....May	1	286	2	50	244	74	50	2	1	7	4	24	1	748
.....5 Mos.	4	1,125	6	168	822	345	233	40	4	40	36	85	2	2,910
New York.....May	12	1,231	19	403	1,209	278	401	78	41	43	73	69	60	3,917
.....5 Mos.	99	5,369	89	1,939	5,429	1,274	1,996	304	126	207	353	355	332	17,872
North Carolina.....May		739	4	120	597	130	96	33	1	23	35	17	5	1,800
.....5 Mos.	4	3,155	27	523	2,653	681	583	102	10	118	136	84	14	8,070
North Dakota.....May		111		24	125	23	64			33	2	2		362
.....5 Mos.		573		114	639	190	385	3		11	2	28	1	1,939
Ohio.....May	10	1,012	12	273	1,168	216	336	25	14	40	55	34	35	3,230
.....5 Mos.	21	5,208	42	1,373	5,661	1,067	1,759	114	114	204	362	201	111	16,237
Oklahoma.....May	2	646		58	596	123	169	1		27	15	13	5	1,625
.....5 Mos.	3	2,674		312	2,461	682	629	16	10	92	57	37	31	7,004
Oregon.....May	1	333	9	61	358	108	104	17		8	18	34	18	1,069
.....5 Mos.	7	1,325	28	301	1,315	541	452	54	2	59	48	179	62	4,372
Pennsylvania.....May	10	1,090	12	359	1,011	277	372	57	22	46	77	37	81	3,451
.....5 Mos.	46	4,896	57	1,749	4,871	1,135	1,937	186	95	209	337	207	311	16,088
Rhode Island.....May	2	82	6	18	76	11	16	5		7		3	1	227
.....5 Mos.	16	307	20	108	328	53	87	19	1	22	18	11	5	995
South Carolina.....May		308	2	143	297	59	80	4		4	1	4		902
.....5 Mos.	2	1,451	5	438	1,358	251	255	32		44	33	24	6	3,897
South Dakota.....May		54	13	12	59	31	76			1	3	1		250
.....5 Mos.		623	15	119	597	224	445	5		31	8	72	3	2,129
Tennessee.....May		628		89	552	122	182	11		13	50	14		1,664
.....5 Mos.	1	3,047	6	552	2,765	782	690	62	5	85	233	47	19	8,294
Texas.....May	9	2,559	13	244	2,130	435	490	32	9	58	94	74	17	6,154
.....5 Mos.	45	11,593	34	1,448	9,754	2,254	2,424	117	39	289	564	294	62	28,907
Utah.....May		140	1	11	84	53	50	4	3	3	1	12	1	263
.....5 Mos.		495	4	85	339	193	185	11	3	16	10	44	10	1,395
Vermont.....May	1	93		25	94	26	48	1		5	1	20	4	310
.....5 Mos.	2	279	1	88	325	110	143	10	2	18	6	76	14	1,074
Virginia.....May		593	2	122	522	115	140	19	3	20	14	31	10	1,550
.....5 Mos.	9	2,453	3	658	2,497	557	545	77	28	111	77	116	40	7,179
Washington.....May	1	506	7	179	556	241	273	3	7	22	13	87	27	1,922
.....5 Mos.	1	1,292	13	500	1,359	608	542	16	12	49	22	146	61	4,619
West Virginia.....May	1	219		49	188	59	55	6		7	8	24	1	617
.....5 Mos.	6	1,049	7	262	938	307	229	16	2	29	27	111	19	3,000
Wisconsin.....May	5	570	1	96	476	140	199	4	1	26	24	26	14	1,582
.....5 Mos.	7	2,263	12	471	2,091	532	915	20	20	113	97	105	73	6,719
Wyoming.....May		132		10	82	36	45	3		4	1	44	2	359
.....5 Mos.	1	529	3	87	438	166	190	9		20	4	126	8	1,581
Location Not Determinable.....May														
.....5 Mos.		25												25
Total.....May, 1954	109	27,871	261	5,500	25,900	6,221	7,749	595	186	1,034	892	1,299	582	78,209
Total.....May, 1953	183	31,237	362	7,338	23,406	7,787	9,389	572	328	2,320	1,191	1,594	657	88,366
Total.....5 Months, 1954	520	120,924	1,161	26,050	113,377	29,942	34,655	2,434	1,010	4,657	4,822	5,553	2,736	347,661
Total.....5 Months, 1953	734	144,821	1,442	39,969	96,336	37,549	44,584	2,823	1,616	11,572	5,246	8,286	3,307	398,295

CCJ's Truck Specifications

COMPILED FROM DATA SUPPLIED EACH MONTH BY MANUFACTURERS

KEY TO DEFINITIONS

MAKE AND MODEL

Only Domestic Truck Models are listed.

OPTIONAL UNITS

For the express purpose of best fitting the truck to the individual job most of the models listed can be provided with optional engines, transmissions, axles, etc., and these models when so equipped are considered standard stock models.

CHASSIS LIST PRICE

The chassis list price applies to the minimum standard wheelbase with standard tires and standard equipment. All prices are F.O.B. factory. Chassis list price does not include the price of the Cab unless otherwise noted.

RECOMMENDED GROSS VEHICLE WEIGHT FOR NORMAL SERVICE

The Gross Weights published herewith are

those supplied by manufacturers as their Recommended Gross Vehicle Weights for Normal Operating Conditions, and are based upon the Maximum Authorized Tire Size listed. In actual practice the manufacturer may either increase or decrease the gross vehicle weight rating when either favorable or unfavorable operating conditions are involved. Since the proper performance of a motor truck depends upon many factors, including grades, road conditions, etc., the gross weights that a manufacturer is prepared to recommend will vary with particular conditions, and the manufacturer's own standard of safety factors. Specific recommendations, therefore, should be obtained from the manufacturer's representative.

CHASSIS WEIGHT

The chassis weight listed includes the weight of the minimum standard wheelbase chassis, with cowl, with standard tires, with standard equipment, with crankcase and cooling system full, and 5 gallons of fuel in the tank. It does not include the

weight of the Cab. This applies to C.O.E. as well as conventional chassis types. Exceptions are noted.

STANDARD TIRE SIZE

The standard tire size listed is that which is included in the Chassis List Price.

MAXIMUM AUTHORIZED TIRE SIZE

The tire size listed in this column is the maximum size recommended by the manufacturer of the chassis for the Gross Vehicle Weight for Normal Operating Conditions. It is furnished at extra cost, if it differs from the standard size. Dual rears are understood; exceptions noted.

MINIMUM STANDARD WHEELBASE

The minimum standard wheelbase is the so-called standard wheelbase on which the Chassis List Price is based.

MAXIMUM STANDARD WHEELBASE

The maximum standard wheelbase is the extreme end of the standard range of wheelbases offered by the chassis maker.

MAXIMUM BRAKE HP.

Maximum Brake Horsepower at Given R.P.M. is actual dynamometer reading without accessories.

GEAR RATIO RANGE

Gear Ratio Range in High—Ratios within the range given are available at no extra cost. Exceptions are noted.

TRACTORS

Unless given the designation (N)—meaning not available as a tractor—all standard models may be assumed to be available as tractors. Exclusively tractor models are designated (T).

KEY TO ABBREVIATIONS

MAKES—ALL

B—Bendix.
BL—Brown-Lipe.
Bu or Bud—Buda.
BW—Bendix-Westinghouse.
C—Chevrolet.
Cl or Cla—Clark.
Con—Continental.
Cu or Cum—Cummins-Diesel.
Eat—Eaton.
F—Ford.
Fu—Fuller.
G-H—Goodyear-Hawley type.
H—Hotchkiss.
Her—Hercules.
HS—Hall-Scott.
Int—International Harvester.
Kai—Kaiser Motors Corp.
L—Lockheed.
LeR—LeRoi.
LH—Lockheed front, Wagner "hi-Tork" rear.
LT—Lockheed type front Timken rear.
LW—Lockheed front, Wisconsin rear.
M—Midland.
N.P.—New Process.
O or Ow—Own.
Op or Opt—Optional.
Shu—Shuler.
Spi—Spicer.
T or Tim—Timken-Detroit Axle Co.

TW—Timken-Detroit—Westinghouse.
TW—Timken-Detroit—Wisconsin.
Var—Variable.
WG—Warner Gear.
Wau—Waukesha.
W or Wis—Wisconsin.
Wg—Wagner "hi-Tork".
Ws—Westinghouse.
WW—Westinghouse or Wagner

WHEELS DRIVEN

2F—Forward unit of Rear Axle Group.
2R—Rear Unit of Rear Axle Group.
4R—Forward and rear units of Rear Axle Group.
6—All wheels.

BRAKES—SERVICE

Location
4—Four Wheels, front and rear.
4—Four Wheels, rear only.
Type
I—Internal.
X—External.
Operation
A—Air.
H—Hydraulic.

V—Vacuum.
D or Dp—Dual Primary.

BRAKES—HAND

Location
C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
6—Six wheels.
P—Back of Power Divider.
J—Jackshaft.
T—Transmission.
F—Driveshaft.

Type

D—Tru-Stop disk.
I—Internal.
M—Mechanical.
X—External.
PD—Two drums on rear of power divider.
F—Mechanical, foot operated

BRAKE DRUMS

Material
A—Cast alloy iron.
A—American Car Foundry.
C—Cast iron.
Cc—Composite Front, Cast Iron in rear.
Ce—Centrifuse.

CI—Copper iron.
Co—Composite.
CX—Front, centrifugal cast; rear, composite.
D—Dayton.
E—Ermalite.
G—Gunite.
N—Nickel iron.
S—Steel.
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

FRAME

Type
C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
B—Channel reinforced with both liner and fishplate.
P—Channel reinforced with plate.
TL—Channel tapered front and rear reinforced with liner.
D—Drop Center.
Tf—Tapered front.
A—Straight section sidemembers, lined with oak inserts.

Z—Reinforced (X) member frame, box type sections.
BG—Box girder.

REAR AXLE

Final Drive and Type

R—Bevel.
CD—Chain Drive.
F—Full-floating.
H or Hy—Hypoid.
d—Dual range axle.
2—Double Reduction.
S—Spiral bevel.
W—Worm.
3/4—Three Quarters Floating.
1/2—Semi-Floating.
T—Torque Tube.

GEAR RATIOS

(*) Only one ratio.

Drive and Torque

H—Hotchkiss (springs).
R—Radius Rods.
L—Parallel Torque Rods.
T—Torque Arm.

GOVERNOR STANDARD

Y—Yes.
N—No.

KEY TO REFERENCES

c.f.—Cab Forward design.
c.o.e.—Cab-Over-Engine design.
(D)—Diesel-engine equipped.
(T)—Designed for tractor use only.
(C)—Ford or Chevrolet Models.
(R)—Remanufactured Fords.
*—Denotes "Includes Cab" when used with weights or prices.

BROWN

*—All six engines listed are available on all five models of trucks.
*—Steel frame only. Also available with Aluminum frame 10x3 1/2 x 1/2.
*—Many variations available with Fuller or Spicer transmissions.

CHEVROLET

†—6500 lb. G.V.W. when 6.50/16 dual tires are used on rear.
*—Includes spare tire, full fuel tank and cooling system.
*—7.50/20 can be used on the front with no decrease in G.V.W. when 8.25/20 are used on dual rear wheels.
*—Own Loadmaster engine available at extra cost.
*—8.25/20 front tires are required when 9.00/20 dual rears are used.
††—Diameter: (Average) Front, 2.6858; Rear Center, 2.7168; Rear Center, 2.7478; Rear, 2.7788. Total Length 5 ft.
†—Hydraulic optional.
†—Heavy duty 3 speed transmission optional.

††—Also available in 5.14 ratio.
*—5.43 available.
*—Two speed axle available.
*—8 1/2 x 1 1/4 is used with heavy-duty equipment.
*—Powerglide optional.
*—Blue Flame 125 engine optional.
*—Jobmaster 261 engine optional.

CORBITT

*—Available with optional tires and axles for less G.V.W. rating.
*—Also available with Cummins HRB600, NHB600 and HRB600.
†—Also available with Continental R6602, R6513 and R6572.
*—Semi-cab over engine.
*—Also available as semi-cab over engine.

DODGE

*—Front only: Rear 7.00/16S.
*—Front only: Rear 8.25/16S.
*—Front only: Rear 7.50/20.
*—Front only: Rear 9.00/20.
*—Front only: Rear 10.00/20.
*—Front only: Rear 8.25/20.
*—Twin carburetor.

DUPLEX

†—Torque Divider, Timken T70-2 speed.

FEDERAL

*—Diesel engine obtainable.
†—Five speed transmission obtainable.
*—Auxiliary transmission Spicer 6231B with 3 forward speeds.
†—Auxiliary transmission Spicer 8031.

†—5501, 6001 and 6501 have single speed, double reduction rear axle.
†—Radius rods obtainable.
†—For wheelbases below 196" — 9 x 3 x 1/4.
††—Diesel engine obtainable.
††—Overdrive optional.
††—Torque Divider Timken T70-2 speed, T50 obtainable.
†—SW3020, SD3020 obtainable.
†—SW3020 obtainable.
*—Rear only.
*—With R series rear axle, reduce G.V.W. by 4000 lbs.

FORD

*—Front only: rear, 8.25/18S.
†—Effective length.
*—Reinforcement standard on 192" w.b.
*—8 1/2 x 2 1/4 x 1/4 standard on 154" w.b.
*—17000 for 210" w.b.
*—Rear only.
*—CA dimension for 192" w.b. B600 model only.

KENWORTH

††—Timken T13129 PA Trail-Axle.
†—14.00/24, front; 16.00/24, rear.
*—C.O.E. optional.
*—One man cab.
*—Torque converter plus Torquematic transmission optional.
*—Cab beside engine optional.
†—Both C.O.E. and cab beside engine optional.
††—14.00/24 front; 18.00/25 rear.
*—Cummins NHRBSID 600.
††—Allison TCL 654 plus TG 602.

NAPCO

*—NAPCO — Northwestern Auto Parts Company (Chevrolet 4-wheel drive conversion).
††—See same footnote under Chevrolet.

OSHKOSH

*—Includes cab.
*—1091 cu. in.
*—Hydraulic coupling optional.
*—Dependent upon engine.

REO

*—Model 331-OA and 331-OA LPG engines can be furnished.
†—Two speed axle available.
†—Double reduction and 2 speed available.
*—Buda 6DTS-468 diesel engine available.
†—Model 255-OA-LPG or 292-OA engine can be furnished.
†—Front only: rear, 10.00/20.
†—OH-160 or OH-160 LPG engine can be furnished.
*—OH-160LPG engine can be furnished.

STERLING

†—Rear only: Front 11.00/24.
†—Rear only: Front 11.00/22.
*—Own EJ three speed auxiliary transmission furnished.
†—Timken T70 two speed torque divider furnished.
†—Parking brake at rear of auxiliary transmission.
*—Rear only: Front 12.00/24.
*—Rear only: Front 14.00/24.
*—Rear only: Front 16.00/24.
*—1125 cu. in.

††—Own model FJ three speed auxiliary transmission furnished.
††—Timken T76 two speed transfer case furnished.
††—Timken T77 two speed transfer case furnished.
†—Parking brake at rear of transfer case.
††—Tapered, 9 x 7 x 3 1/4 x 1/4.
††—Also available with Cummins Diesel engine and appropriate transmission.

STUDEBAKER

*—H.D. 6.20 or 6.80 optional.
*—Two speed 5.93-8.10 optional.
*—Two speed 6.48-8.86 optional.

TRUCKSTELL

*—Single front, dual rear.
††—With 3 speed power divider.
†—Weight with cab and maximum tires.
*—Including slip-over reinforcing frame channels.
†—Air brake optional.

WARD LA FRANCE

†—Available with optional rear axle.
*—Available with 11.00/22 or 12.00/20 tires for G.V.W. of 60,000 lbs and optional front and rear axles.
*—Auxiliary transmission Fuller 3A65, 3B65, 3A92 and 3B92.

WILLYS

*—Complete vehicle-Pick-up Type body.
†—Three speed transmission, 2 speed transfer case.

(Turn to Next Page, Please)

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE		Gross Vehicle Weight For Normal Service	Chassis Weight (See definition)	TIRE SIZES		ENGINE DETAILS						TRANS- MISSION	REAR AXLE		FRONT AXLE	BRAKES				FRAME			
			Minimum Standard	Maximum Standard			Standard Front and Rear	Maximum Authorized Tire Size (less noted)	Dual rear S-single rear	Make and Model	No. of Cylinders Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft. H.P. at R.P.M.		Number and Diameter Main Bearings	Governor Standard		Make and Model	Gear and Type	Drive & Torque	Clear Ratio Range in High		Make and Model	Location Type	Lining Area
1	Available	200			15000	5500	7.00/20D	8.25/20	6-3 1/2 x 4 1/2	263.5	1.75	72-2800	72-2800	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
2	(c.o.e.)	226			16500	6200	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
3	(c.o.e.)	250			17000	6500	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
4	(c.o.e.)	276			18000	6800	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
5	(c.o.e.)	300			19000	7100	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
6	(c.o.e.)	326			20000	7400	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
7	(c.o.e.)	350			21000	7700	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
8	(c.o.e.)	376			22000	8000	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
9	(c.o.e.)	400			23000	8300	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
10	(c.o.e.)	426			24000	8600	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
11	(c.o.e.)	450			25000	8900	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
12	(c.o.e.)	476			26000	9200	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
13	(c.o.e.)	500			27000	9500	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
14	(c.o.e.)	526			28000	9800	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
15	(c.o.e.)	550			29000	10100	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
16	(c.o.e.)	576			30000	10400	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
17	(c.o.e.)	600			31000	10700	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
18	(c.o.e.)	626			32000	11000	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
19	(c.o.e.)	650			33000	11300	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
20	(c.o.e.)	676			34000	11600	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
21	(c.o.e.)	700			35000	11900	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
22	(c.o.e.)	726			36000	12200	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
23	(c.o.e.)	750			37000	12500	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
24	(c.o.e.)	776			38000	12800	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
25	(c.o.e.)	800			39000	13100	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
26	(c.o.e.)	826			40000	13400	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
27	(c.o.e.)	850			41000	13700	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
28	(c.o.e.)	876			42000	14000	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
29	(c.o.e.)	900			43000	14300	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
30	(c.o.e.)	926			44000	14600	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
31	(c.o.e.)	950			45000	14900	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
32	(c.o.e.)	976			46000	15200	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
33	(c.o.e.)	1000			47000	15500	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
34	(c.o.e.)	1026			48000	15800	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
35	(c.o.e.)	1050			49000	16100	7.50/20D	8.25/20	6-4 1/2 x 4 1/2	320.5	1.75	106-3200	106-3200	3-10 1/2 x 10 1/2	W 500	W 500	4-Tim 100DP	HF	4-Tim 100DP	LFHV	314	534a	TX	TX	10x3 1/2	CC
36	(c.o.e.)	1076			50000	1640																				

Line Number	MAKE AND MODEL	TIRE SIZES		Gross Vehicle Weight For Normal Service	Chassis List Price	WHEEL-BASE Minimum Standard	ENGINE DETAILS			TRANSMISSION			REAR AXLE			FRONT AXLE	BRAKES			C-A Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions					
		D-dual rear S-single rear	Rear and Front and (See definition)				No. of Cylinders	Displacement	Comp. Ratio	Torque lb. ft.	H.P. at R.P.M.	Main Bearings	Governor Standard	Make and Model	Forward Speeds		Make and Model	Gear and Type	Drive & Torque			Range in High	Make and Model	SERVICE		
																								Location	Type	Area
Dodge—Cont'd																										
1378	C-1-F6	129	133	14000	40006.50 20D	7.50 20	Own T-342	6-3-34	2307	3194	110	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	39006.50 20S	7.50 20	Own T-342	6-3-34	2307	3194	110	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	40756.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	41956.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	42506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	43506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	44506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	45506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	46506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	47506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	48506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	49506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	50506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	51506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	52506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	53506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	54506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	55506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	56506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	57506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	58506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	59506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	60506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	61506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	62506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	63506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	64506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	65506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	66506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	67506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	68506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	69506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	70506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	71506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	72506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	73506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	74506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	75506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	76506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	77506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	78506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	79506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	80506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	81506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	82506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	83506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	84506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	85506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F6	129	133	14000	86506.50 20D	8.25 20	Own T-342	6-3-34	2317	3210	120	3600	4	NP-89960	4	Own T-342	4F	HVF	4	Own T-342	4	OAH	480	TX	60	42-3/4
1400	C-1-F																									

(Turn to Page 110, Please)

Fleet owners maintenance men...

SAVE

many hours
per unit on
break-in stand

CASH

savings through
reduced oil
consumption

NOW...

premium
performance
and long
engine life

install Krome-Oil, the chrome ring set with all the answers

*Pre-seating assures fast oil control. Here's why. Pre-seating is a factory-applied lapping process for the top groove compression ring which is equivalent to 300 to 500 miles of actual engine operation. The smooth, even bearing of the narrow land contact surface (portion of ring magnified in photo) guarantees early break-in, fast oil control.

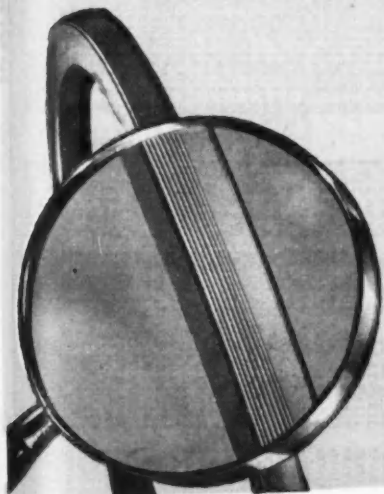
AMERICAN HAMMERED

Pre-seated* Krome-Oil

PISTON RING SETS

The full chrome ring set with
chrome where it pays off

There's chrome facing on the top groove compression ring and on the side rails of the steel oil ring. This is where chrome pays off in longer engine life. American Hammered Krome-Oil rings lick the problem of ring scuffing and still assure quick seating and immediate oil control because they are pre-seated.



American Hammered

AUTOMOTIVE REPLACEMENT DIVISION

2001 Sanford Street, Muskegon, Michigan

Manufacturers of American Hammered Automotive Replacement Piston Rings
A Division of Sealed Air Corporation

For the best in fleet maintenance, remember American Hammered
Power-Plus Service—Krotherizing • GI-60 Groove Insert • Dry Film Lubricants



(Continued from Page 108)

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE		Gross Vehicle Weight (See definition)	TIRE SIZES		ENGINE DETAILS					TRANSMISSION		REAR AXLE			FRONT AXLE	BRAKES				C-A Dimensions (Min. Std. W. B.)	FRAME Side Rail Dimensions						
			Minimum	Maximum		Standard	Dual rear S-single rear	Maximum Authorized Tire Size (Dunsun- less noted)	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	H.P. at R.P.M.	Main Bearings	Governor Standard	Make and Model	Forward Speeds		Make and Model	Clear and Type	Drive & Torque	Gear Ratio Range in High			Make and Model	Location Type	Linking Area	Drum Area	Drum Material	Hand Location Type
(Continued from Page 108)																														
Ford-Cont'd																														
1	F-700		132	192	19500	4335/57.50/20D	9.00/20	Own	8-3.62x3.1	2567	2226	138-3900	5-2 1/2 x 3 1/2	Y Own	4 Own	HF H	H 7.2	7.2	7.2	Own	O41HV	444 697			TX	61	9x3 1/2	L		
2	F-740		132	192	19500	4583/58.25/20D	9.00/20	Own	8-3.56x3.1	2797	2246	152-3800	5-2 1/2 x 4 1/2	Y Own	5 Own	HF H	H 7.2	7.2	7.2	Own	O41HV	444 697			TX	61	9x3 1/2	L		
3	F-800		132	192	22000	4635/59.00/20D	10.00/20	Own	8-3.83x3.1	3177	2286	170-3900	5-2 1/2 x 4 1/2	Y Own	5 Own	SF H	H 7.17-7.67	6.7	6.7	Own	O41HV	485 729			TX	61	9x3 1/2	L		
4	F-900		132	192	27000	4660/10.00/20D	11.00/22	Own	8-3.83x3.1	3177	2286	170-3900	5-2 1/2 x 4 1/2	Y Own	5 Own	SF H	H 7.17-7.67	6.7	6.7	Own	O41HV	542 829			TX	61	9x3 1/2	L		
5	T-700 Tandem		144	192	27000	4747/57.50/20D	8.25/20	Own	8-3.62x3.1	2567	2226	138-3900	5-2 1/2 x 3 1/2	Y Own	5 Own	HF H	H 6.7-7.70	7.0	7.0	Own	O61HV	625 980			TX	73	9x3 1/2	L		
6	T-800 Tandem		144	192	27000	4715/57.50/20D	8.25/20	Own	8-3.62x3.1	2797	2246	152-3800	5-2 1/2 x 4 1/2	Y Own	5 Own	HF H	H 6.7-7.70	7.0	7.0	Own	O61HV	625 980			TX	73	9x3 1/2	L		
7	C-600 C. F.		144	192	40000	4955/59.00/20D	10.00/20	Own	8-3.83x3.1	3177	2286	170-3900	5-2 1/2 x 4 1/2	Y Own	5 Own	SF H	H 7.8-8.6	8.6	8.6	Own	O41HV	837 1232			TX	73	9 1/2 x 3 1/2	L		
8	C-600 C. F.		110	158	14000	4460/6.50/20D	7.50/20	Own	8-3.1/2 x 3.1	12397	2214	130-4200	5-2 1/2 x 3 1/2	Own	4 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41HV	323 494			TX	60	8 1/2 x 2 1/2	C		
9	C-600 C. F.		110	158	16000	4750/7.50/20D	8.25/20	Own	8-3.1/2 x 3.1	12397	2214	130-4200	5-2 1/2 x 3 1/2	Own	4 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41HV	366 561			TX	60	8 1/2 x 2 1/2	C		
10	C-700 C. F.		110	158	16000	4770/7.50/20D	8.25/20	Own	8-3.62x3.1	2567	2226	138-3900	5-2 1/2 x 3 1/2	Own	4 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41HV	366 561			TX	60	8 1/2 x 2 1/2	C		
11	C-700 C. F.		116	156	19500	4685/57.50/20D	9.00/20	Own	8-3.62x3.1	2567	2226	138-3900	5-2 1/2 x 3 1/2	Y Own	4 Own	HF H	H 7.2	7.2	7.2	Own	O41HV	444 697			TX	66	9x3 1/2	L		
12	C-800 C. F.		116	156	19500	4685/57.50/20D	9.00/20	Own	8-3.62x3.1	2797	2246	152-3800	5-2 1/2 x 4 1/2	Y Own	5 Own	SF H	H 7.17-7.67	6.7	6.7	Own	O41HV	444 697			TX	66	9x3 1/2	L		
13	C-800 C. F.		116	156	23000	4685/57.50/20D	10.00/20	Own	8-3.83x3.1	3177	2286	170-3900	5-2 1/2 x 4 1/2	Y Own	5 Own	SF H	H 7.17-7.67	6.7	6.7	Own	O41HV	485 729			TX	66	9x3 1/2	L		
14	C-900 C. F.		116	156	27000	4815/10.00/20D	11.00/22	Own	8-3.83x3.1	3177	2286	170-3900	5-2 1/2 x 4 1/2	Y Own	5 Own	SF H	H 7.17-7.67	6.7	6.7	Own	O41HV	542 829			TX	66	9x3 1/2	L		
15	P-350 Parcel Divy		104	122	7800	2993/7.00/16S	7.50/17S	Own	6-3.62x3.1	62237	2193	115-3900	4-2 1/2 x 3 1/2	Own	3 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41H	196 302			TX	88	6 1/2 x 4 1/2	C		
16	P-350 Parcel Divy		130	130	14000	4025/7.00/18	7.50/20	Own	6-3.62x3.1	62237	2193	115-3900	4-2 1/2 x 3 1/2	Own	3 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41H	323 494			TX	114	8 1/2 x 2 1/2	C		
17	B-350 School Bus		154	154	12000	3900/6.50/20D	7.50/20	Own	6-3.62x3.1	62237	2193	115-3900	4-2 1/2 x 3 1/2	Own	4 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41H	323 494			TX	128	8 1/2 x 2 1/2	C		
18	B-350 School Bus		154	154	12000	4006/6.50/20D	7.50/20	Own	6-3.62x3.1	62237	2193	115-3900	4-2 1/2 x 3 1/2	Own	4 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41H	323 494			TX	128	8 1/2 x 2 1/2	C		
19	B-400 School Bus		192	192	16000	4510/7.50/20D	8.25/20	Own	8-3.1/2 x 3.1	12397	2214	130-4200	5-2 1/2 x 3 1/2	Own	4 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41HV	366 561			TX	168	8 1/2 x 2 1/2	C		
20	B-400 School Bus		192	210	16000	4610/7.50/20D	8.25/20	Own	8-3.1/2 x 3.1	12397	2214	130-4200	5-2 1/2 x 3 1/2	Own	4 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41HV	366 561			TX	168	8 1/2 x 2 1/2	C		
21	B-500 School Bus		192	210	16000	4630/7.50/20D	8.25/20	Own	8-3.62x3.1	2567	2226	138-3900	5-2 1/2 x 3 1/2	Y Own	4 Own	HF H	H 6.2-6.8	6.8	6.8	Own	O41HV	366 561			TX	168	8 1/2 x 2 1/2	C		
22	B-700 School Bus		233	233	19500	5615/7.50/20D	9.00/20	Own	8-3.62x3.1	3177	2286	170-3900	5-2 1/2 x 4 1/2	Y Own	4 Own	HF H	H 7.2	7.2	7.2	Own	O41HV	444 697			TX	203	9x3 1/2	L		
23	B-700 School Bus		233	233	20000	5985/8.25/20D	9.00/20	Own	8-3.62x3.1	3177	2286	170-3900	5-2 1/2 x 4 1/2	Y Own	5 Own	SF H	H 7.2	7.2	7.2	Own	O41HV	444 697			TX	203	9x3 1/2	L		
24	Kenworth (D) 4521		153	255	35000	12500/10.00/20	11.00/22	Cum HNB600	8-5.1/2 x 6	7431	540	165-1800	4-1 1/2 x 16 1/2	Y Spl 8041	12 Tim U200P	H2F H	H 5.91-9.76	9.76	9.76	Tim F-6000DPA W-41A	722 1174a			TD	67	10 1/2 x 3 1/2	C			
25	Kenworth (D) 4555		153	255	35000	11600/10.00/20	11.00/22	Cum HNB600	8-5.1/2 x 6	7431	540	165-1800	4-1 1/2 x 16 1/2	Y Spl 8041	12 Tim U200P	H2F H	H 5.91-9.76	9.76	9.76	Tim F-6000DPA W-41A	722 1174a			TD	67	10 1/2 x 3 1/2	C			
26	(D) 4581		158	255	35000	37400	11.00/22	Cum HNB600	8-5.1/2 x 6	7431	540	165-1800	4-1 1/2 x 16 1/2	Y Spl 8041	12 Tim U200P	H2F H	H 5.91-9.76	9.76	9.76	Tim F-6000DPA W-41A	722 1174a			TD	67	10 1/2 x 3 1/2	C			
27	Mar. Her. DVL-4		90	118	6750	7.50/16S	8.25/18S	Willis MB	4-3 1/2 x 4 1/2	134	6.105	60-4000	2-2 1/2 x 5 1/2	Y Own	3 (Front Drive)		7.10	7.10	7.10	Own	41H	202 327M2			FD	None	None			
28	Peterbilt (D) 280		175	Opt	27000	12500/10.00/20	11.00/22	Cum HNB600	8-5.1/2 x 6	7431	500	200-2100	4-1 1/2 x 16 1/2	Y Spl 8041	12 Tim R-230DP	H2F H	H 5.91-9.76	9.76	9.76	Tim F-6000DPA W-41A	738 1052			TD	86	10 1/2 x 3 1/2	CT			
29	Peterbilt (D) 250		175	Opt	27000	10450/10.00/20	11.00/22	Cum HNB600	8-5.1/2 x 6	7431	500	200-2100	4-1 1/2 x 16 1/2	Y Spl 8041	12 Tim R-230DP	H2F H	H 5.91-9.76	9.76	9.76	Tim F-6000DPA W-41A	738 1052			TD	86	10 1/2 x 3 1/2	CT			
30	Peterbilt (D) 250		165	Opt	27000	10450/10.00/20	11.00/22	Cum HNB600	8-5.1/2 x 6	7431	500	200-2100	4-1 1/2 x 16 1/2	Y Spl 8041	12 Tim R-230DP	H2F H	H 5.91-9.76	9.76	9.76	Tim F-6000DPA W-41A	738 1052			TD	86	10 1/2 x 3 1/2	CT			
31	Reo F-20-1		125	185	16000	4575/7.50/20	8.25/20	Own 255	6-3.1/2 x 4	2556	1789	107-3400	2-1/2 x 9 1/2	Y WGC-T98	4 Tim E-100	HF H	H 6.2-6.8	6.8	6.8	Tim 30000	LTA1VH	340 534			TX	60	8 1/2 x 2 1/2	T		
32	Reo F-20-2		125	185	17000	4575/7.50/20	8.25/20	Own 255	6-3.1/2 x 4	2556	1789	107-3400	2-1/2 x 9 1/2	Y WGC-T98	4 Tim E-100	HF H	H 6.2-6.8	6.8	6.8	Tim 30000	LTA1VH	340 534			TX	60	8 1/2 x 2 1/2	T		
33	Reo F-20-3		125	185	17000	4575/7.50/20	8.25/20	Own 255	6-3.1/2 x 4	2556	1789	107-3400	2-1/2 x 9 1/2	Y WGC-T98	4 Tim E-100	HF H	H 6.2-6.8	6.8	6.8	Tim 30000	LTA1VH	340 534			TX	60	8 1/2 x 2 1/2	T		
34	Reo F-20-4		125	185	17000	4575/7.50/20	8.25/20	Own 255	6-3.1/2 x 4	2556	1789	107-3400	2-1/2 x 9 1/2	Y WGC-T98	4 Tim E-100	HF H	H 6.2-6.8	6.												

Not ours —
we've always
depended
on **DELCO**
for lowest
cost per
mile of
operation.
It's a tougher
Battery!



*Always
replace with a*

DELCO BATTERY

Original equipment on more new cars and trucks than any other brand

***No space
wasted!***

EVERY INCH
AN ACTIVE
STOREHOUSE
OF POWER!

Battery maintenance doesn't have to be a big expense item in your fleet. Not if you use Delco batteries — because every inside inch that ought to be working, *is working*. Every inch is an active storehouse of power designed to give you greater service at a lower cost per mile of operation. This is what has made Delco the nation's No. 1 battery in original equipment and replacement use!

FULL-SIZE PLATES—No fillers or spacers are used in Delcos, as in some batteries that look as big. Delco is 100% an active storehouse of real power.

POWER-FULL CASE—Specially designed for each Delco model; newly engineered for 50% higher impact strength, withstands road shocks.

GENEROUS LIQUID RESERVE—Plates amply covered for 4000-6000 miles of normal driving, yet there's none of the false security of excessive reserves.

EXCLUSIVE "EXPANDER" FORMULA — This feature of the negative plates means greater cranking power, reduces harmful granulation. Patented! It's only in Delco!

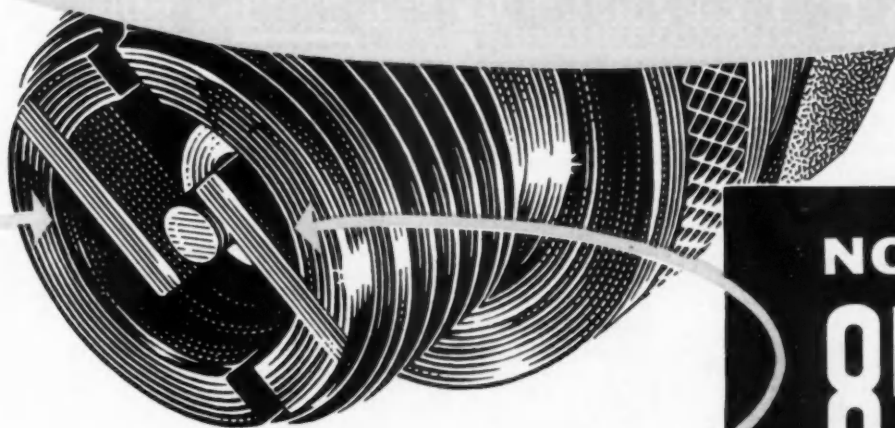
A GENERAL MOTORS PRODUCT



A UNITED MOTORS LINE

**FOR PREMIUM PERFORMANCE...
LONGER LIFE...
EASIER CLEANING...**

HASTINGS "AERO-TYPE"



WITH SHROUDED TWIN ELECTRODES

NOW

85¢

Here now is a premium spark plug for 85¢. Hastings Aero-type construction, with shrouded twin electrodes, is the greatest recent improvement in spark plug performance. And the new low list price of 85¢ puts it within the reach of everyone.

The Hastings Shrouded Plug performs better, lasts longer, cleans easier. Two ground electrodes (one on each side of the center electrode) for longer service and easier cleaning. Cleaning abrasives get all around the insulator tip and electrode firing surfaces to renew performance and life.

Hastings Plugs operate with considerably higher *insulator* temperature, to retard fouling. And yet the electrodes, being out of the path of the hot flame sweep, operate at a *lower* temperature and with increased life.

The H. T. aluminum oxide insulator . . . corrosion-resisting solid copper gasket . . . accurate heat rating . . . and engineering for replacement service—all go to make this a plug built for premium performance.

And now you can have all this—at the new list price of 85¢. Ask your Hastings Jobber.

HASTINGS MANUFACTURING COMPANY, HASTINGS, MICHIGAN • HASTINGS LTD., TORONTO

Spark Plugs, Piston Rings, Casite, Castube, Drout, Oil Filters

HASTINGS

Aero-type-Shrouded **SPARK PLUGS**

Engineered for Replacement



For Key to References and Abbreviations See Page 105

(Turn to Page 114, Please)

st, 1954

[illegible]

BEST PERFORMER!




You're looking at the most widely accepted Air Brake Compressor ever produced for the truck and bus industries—a rugged, reliable Bendix-Westinghouse compressor. This precision-built reciprocating piston compressor is a dependable, long-lived unit which over the years has rolled up *more miles on more installations* than any other compressor ever built. That's mighty important to you. And whether you build, sell or operate trucks or buses, you can put this same unequalled experience to work for you. For into every Bendix-Westinghouse product, from compressors and brake valves right on down to brake chambers and slack adjusters, goes the manufacturing and design know-how gained through more than 30 years of continued leadership in the Air Brake business. That means better, safer, more efficient braking performance on any hauling or transit job. Take advantage of it—be sure your vehicles are equipped with the very best in brakes. Always specify Bendix-Westinghouse — The World's Most Tried and Trusted Air Brakes.

Bendix-Weatinghouse
THE WORLD'S MOST TRIED AND TRUSTED **AIR BRAKES**







BENDIX-WESTINGHOUSE
AUTOMOTIVE AIR BRAKE CO.
General Offices & Factory—Elyria, Ohio
Branches—Berkeley, Calif., and
Oklahoma City, Okla.

You



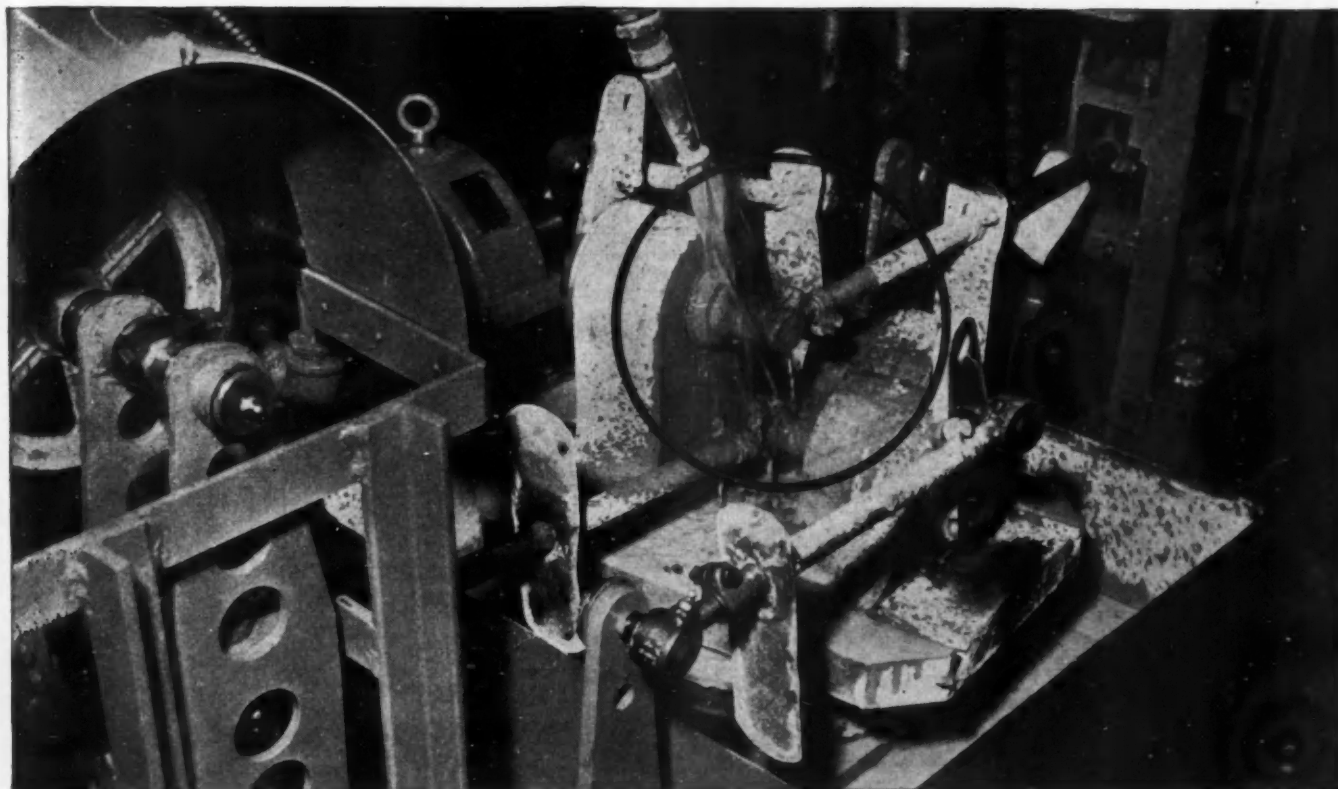
A series of tests are conducted during the design process. The extra tests are required to ensure the equipment is reliable and safe.



A se
trea
dura
Th
extr
tests
equi
cally
anal

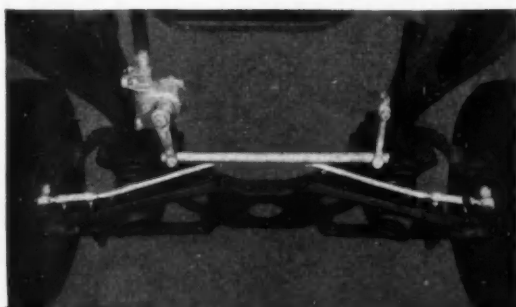
You can count on

Thompson's Performance-Tested steering linkage



A set of Thompson dual bearing tie rod ends gets the water treatment as part of a continuing test to determine the durability of this Thompson linkage.

This test, duplicating actual road conditions of the greatest extremes, is conducted for several weeks. Actually, in some tests, Thompson steering linkage units are subjected to the equivalent of more than 100,000 miles. Units are periodically removed from the testing equipment and carefully analyzed for wear.



You can count on

Thompson Products

MICHIGAN PLANT

Detroit • Fruitport • Portland

THOUSANDS of miles of all kinds of driving—mud, water, ruts, jars and jolts—that's the testing story behind Thompson's dual bearing tie rod ends. It's the story of Thompson Products' exacting steering engineers who carefully performance-test linkage in a laboratory especially designed to duplicate all road conditions. In addition, these linkage units are extensively road-tested by Thompson engineers.

Behind this story is the continuing search for improvement—in materials, in performance, and in manufacturing procedures. New materials, new manufacturing processes, new designs are all subjected to grueling performance tests, such as the one pictured here. Day and night this set of Thompson dual bearing tie rod ends will be subjected to mud, to water, to periods of dryness, and to periods when impact is applied.

The end result of exacting analysis of wear and tear and of thousands of miles of simulated driving, is the best possible linkage systems for cars, trucks, buses, and tractors. Another result is the successful development of such revolutionary steering aids as Thompson's ball-joint front suspension, the greatest advance in automotive steering in 20 years.

If you have a steering linkage problem, let Thompson's steering engineers help you. Just write or phone Thompson Products, Michigan Plant, 7881 Conant Avenue, Detroit 11, Michigan, WA 1-5010.

[illegible]

For Key to References and Abbreviations See Page 105

An example board is shown in Figure 1. Caterpillar's component contributes to complete production of the size MECH MECHANICAL components during ion development. MECHANICAL power train to secure advantages.

MECHANICS

2034 HARRI

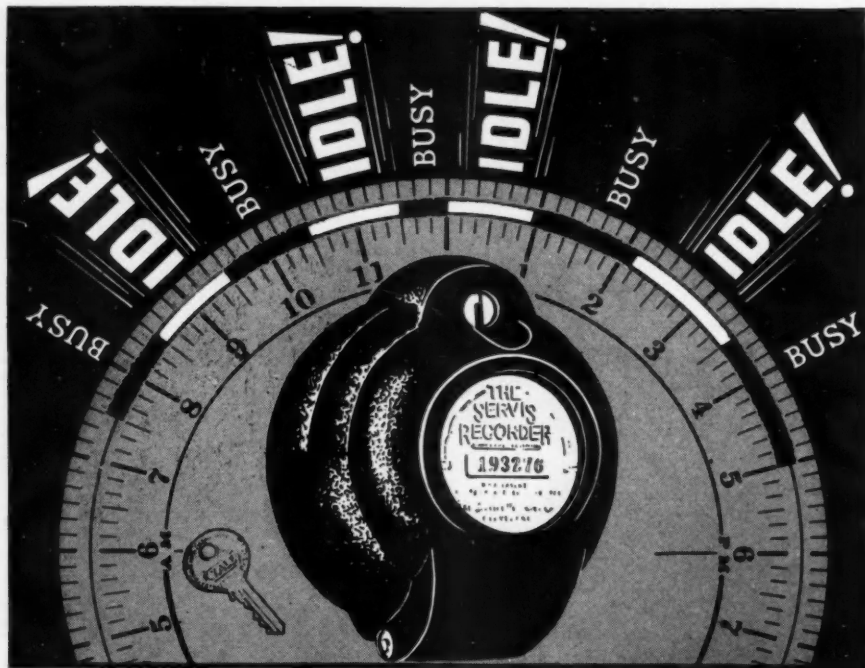
rust, 1954

College of Furniture Knowledge

Continued from Page 79

a five-room, two-story house complete with furniture—from a baby grand piano to a footstool—just to prepare the boys for some of the pitfalls ahead. The "home" has a built-in stairway—narrow, steep and with a 90 deg turn just to make it interesting for furniture movers.

A trailer is permanently located adjacent to the building so that trainees can load and unload in all kinds of weather. However, in good weather, a side door is used for providing experience in packing partial loads. An instructor works with the class, showing how to pack, wrap, load and even lift. Use of



THESE DELAYS GRAB YOUR EYE!

LOOK at that first white gap on the Servis Recorder chart above. It shows the truck stood idle between 8:30 and 9:30—an hour of unproductive time.

You can't fail to see all idle time on the Servis Recorder chart . . . And an hour's time of a motor truck, what does it cost? Maybe up to twenty dollars!

SHOWS ALL DELAYS

By studying the chart you discover how much you can save

—an hour or two a day! An extra trip! More work with the same number of trucks! A check on speeding! On overtime! Routes evened up among drivers, and a better effect on morale all around!

Get all this by installing low cost Servis Recorders. Write for FREE illustrated booklet. THE SERVICE RECORDER CO., 1375 F Euclid Ave., Cleveland 15, Ohio.

The Servis Recorder

Tells Every Move Your Truck Makes

backsaving devices is an important phase of the course, as is instruction in the right way to lift.

A full week is devoted to loading techniques in the approved Mayflower methods—and busy work or not—the men get some advice that saves many a headache later when they meet some tough problems out on the road. The second week is devoted to paper work. Here the use of the ICC log, bills of lading and other allied papers is reviewed. Work with mock ups, blackboards and practice filling out of the actual forms comprises most of the activity. Students are given theoretical trips on which they prepare the paper detail. Each set of papers is graded and returned to the driver daily. And a final examination shows how much he has learned and retained.

Also during this "paper work" week, the trainee gets a big shot in the arm on safety. Several instructional safety films are shown and our insurance company has a representative here who lectures to the men on safety.

Certificate at Graduation

At the conclusion of the course each driver is presented with a certificate showing satisfactory completion of the school. The achievement is highly regarded and does much to promote good relations with the company.

Candidate Selection

The moving course represents only one phase of training the new Mayflower driver. The other steps in his route to employment may appear somewhat routine. However, they do add up to an intelligent and comprehensive selection program that guarantees high grade representatives. Let's examine the other phases of the program.

From a preliminary interview the company determines whether the applicant has these characteristics:

1. Does his appearance and personality warrant his meeting the public?
2. Is his speech acceptable to the average homemaker?
3. Does he have enough trucking background to have a knowledge of operating a truck over all 48 states and Canada?

(TURN TO PAGE 123, PLEASE)

... Furn

4. Is he p
ing the job?

5. Is he
would trust
hold furnitu
fidence?

If he is—
Wunderlic
flower's own
well as the

Over-the-R

Over the
of a training
proved drive
the prospect
truck or as
packing, obt
struction th
tained any
sends in rep
from time to
hensive pict
progress. Wh
clash, howev
assigned an
chance. Thus
to keep men
tial. Drivers
effort of the
spect.

The three-
on the vehic
6-problem co
park for par
around, etc.
much like a
is held to
handling his
attempt to di
ly another
When he lea
rig, he appre
and the com
assured that
equipment th

Prior to l
assignment
superintende
portant that
established
tendent is
From here o
dent of drive
from termin
pers, agents
personnel w
come in conta

Please Resu

COMMERCIAL C.

... Furniture Knowledge

Continued from Page 120

4. Is he physically capable of doing the job?

5. Is he the type person you would trust to move your household furniture with complete confidence?

If he is—then he must pass the Wunderlic personnel test, Mayflower's own mathematical test, as well as the tele-binocular eye test.

Over-the-Road Tour

Over the road schooling consists of a training tour with a tried and proved driver. During this period the prospective driver operates the truck or assists in loading and packing, obtaining supervised instruction that could hardly be obtained any other way. The driver sends in reports to the home office from time to time so that a comprehensive picture is obtained of his progress. When and if personalities clash, however, the trainee is re-assigned and is given another chance. Thus, every effort is made to keep men with recognized potential. Drivers, as well, appreciate the effort of the company in this respect.

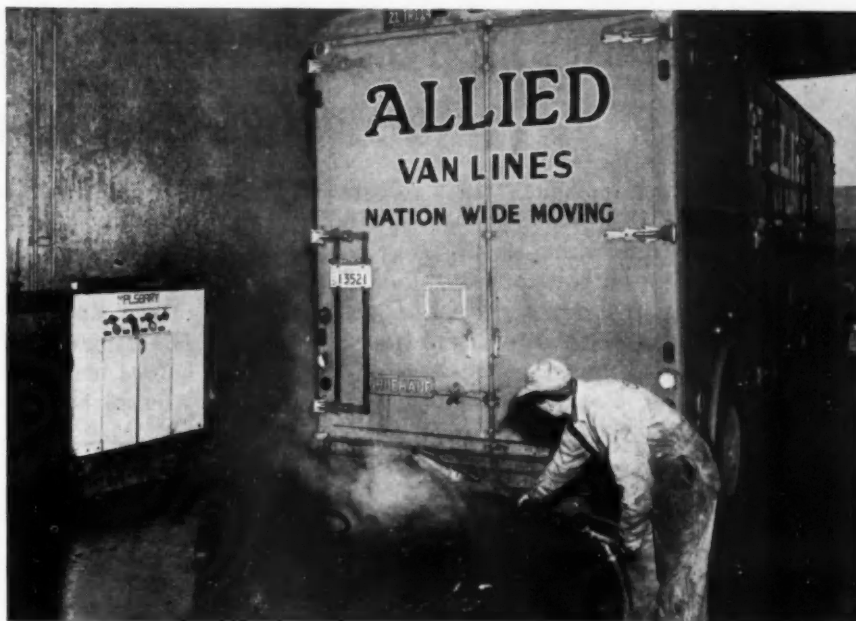
The three-day training program on the vehicle itself consists of a 6-problem course set up at the ball park for parking, backing, turning around, etc. The course is set up much like a rodeo and the trainee is held to rigid requirements in handling his vehicle. This is not an attempt to disqualify a man—merely another way of helping him. When he leaves later with his own rig, he appreciates this experience, and the company, of course, feels assured that he is able to handle equipment the right way.

Prior to leaving with his first assignment the driver visits the superintendent of drivers. It is important that a good relationship be established here, for the superintendent is his father confessor. From here on out the superintendent of drivers handles all reports from terminal supervisors, shippers, agents, dispatchers and all personnel who have occasion to come in contact with the driver.

END

Please Resume Reading Page 80

COMMERCIAL CAR JOURNAL, August, 1954



In 45 minutes, MALSARY 250 steam cleaner completely removes road oil and dirt from this van at Truck Town, Calgary. Cleaner is recessed in wall to save floor space and keep cleaning area clear for maneuvering trucks.

Does Steam Cleaning Pay?

Fleet Owners of MALSARY HPC Cleaners Report:

Turn-around cut from 3 days to 6 hours

—Converting a tanker from bunker oils to lighter fuels formerly took a Maryland trucker 3 days or more. Now the high pressures and quick degassing possible with a MALSARY 250 cut that to 5 or 6 hours. Quick cleaning and degassing of a leaky tanker saved \$400 for this trucker on one repair job alone.

Cleaning time reduced 200%.—A New England hauler completely cleans a 2500-gal. trailer, covered with road dirt and peanut oil, in 1 hour. He steam cleans chassis and engines before overhauls, and tankers, both outside and in to get rid of odors and residues. His maintenance superintendent reports: Our MALSARY steamers operate 18-20 hours daily and have cut tank cleaning time about 200% on a 300-unit fleet.

To handle tough cleaning and degassing jobs for large fleets, requires lots of water, real impact, and plenty of hot wet steam. You get all three in MALSARY HPC cleaners.

HPC means high pressure combination
—MALSARY HPC cleaners use pumps

for pressure instead of steam. You have choice of cleaning with cold water, hot solution (steam), or hot rinse—combined with pressures to 400 p.s.i. These pressures literally explode water or steam (to 325° F) from the cleaning nozzle, blast away stubborn road oils and caked dirt other cleaners can't touch.

Low pressure wet steam from MALSARY HPC cleaners adjusts to give you a maximum of steam (as high as 80% vapor to 20% water) for heating 4000-gal. tanks to 212° F. in as little as 10 minutes. No other steam cleaner can heat and degass tankers so fast.

Why settle for a halfway cleaner when a MALSARY can handle all your cleaning needs? Try it. Ask your MALSARY dealer to demonstrate on your job NOW...or write today for Catalog 150-R and application sheets.

57



Room K8, 845-92nd Ave., Oakland 3, Calif.

Louisville Buses Stop on Schedule

Continued from Page 73

principle is basic, too much emphasis cannot be placed on precision work in establishing accurate drum and lining surfaces. It is not only a matter of drum warping, and bell mouthing or brake shoe misalignment, but the concentricity of the blocks to the

drum is very important in establishing good performance. We grind the drum and hub as a unit on a Lempeco drum lathe in a move to keep surfaces true and free from distortion. Even new vehicles are checked before being put on the road, and when drums are

found .005 in. out of round or distorted, they are conditioned in this manner.

The blocks are ground concentric to the axle by using the lining grinder shown. We purchase oversize blocks and grind to the drum area, thus being assured of full use of the drum swept area.

Service Practices

The foundation system, however, is only as good as the application system and the pressure that can be made available when required. Accordingly, we make a practice of replacing the relay valve, the quick release valve, the brake chambers and the application valve with every rear change. These units are pulled, and rebuilt ones are installed while the drum and lining are being conditioned. Reason is this. Brake valves carbon up due to conditions in the compressor which are at present not easily remedied. Moisture too, condensing in the line and on the valves produces a certain amount of corrosion which cannot be tolerated around such critical surfaces as diaphragms. A rebuild at the bench usually does not involve much more than the time required to clean and test, and certainly lack of failures of these units pays the labor bill.

Brake chamber springs are replaced as are the diaphragms in the chambers at every brake job. While more miles might be obtained on these units, in some cases, we feel that if they give us almost 60,000 miles of trouble-free service, they have served a useful life. Brake shoe hold back springs are tested on the unit illustrated. They must show a specified tension at a certain expended length as noted on the scale if they are salvageable.

We do not always make pressure tests at the wheels because we feel that when all units and parts are held to these rigid standards, the pressure required to move the shoes outward is equally balanced at all four wheels. Experience has proved that in our operation the time required to make the pressure checks is not justified. But of

(TURN TO PAGE 128, PLEASE)

THERE'S AN EASIER WAY...



Now - at last a quick and easy way to remove stuck or frozen tires

No beating or pounding for hours. No aching backs and no lost profit. The BOS Demounter will remove the most stubborn truck tire from the toughest rim.

NEW
SUPER
MODEL



- Handles all sizes truck tires 15" to 24"
- Portable—Used in the Shop or for Road Service
- Features Hein-Werner Hydraulic Unit, 6,000 lbs. Pressure
- Prevents Damage to Rim and Tire
- Safe—Protects Operator from Injury
- Precision Built of the best Steel

Time Saver for Trucks: Money Maker for Dealers

JACK P. HENNESSY SALES CO.

12 DEPOT SQUARE • ENGLEWOOD, N.J.

MAIL ORDERS OR REQUEST
FOR FURTHER DETAILS TO

THE DIFFERENCE IN PEDRICK *FORMFLEX* DESIGN Makes the BIG DIFFERENCE in Performance



THE *Pedrick* FORMFLEX CHROME OIL RING WITH THE FAMOUS "EQUALIZER"

Radically different type expander gives Formflex rings 5 times more conformability than rings with hump-type expanders. Stops oil waste quickly, yet meters enough oil to lubricate against wear.



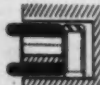
UNIFORM PRESSURE DISTRIBUTION — "Equalizer" gives equal outward pressure for more perfect seal—better oil control—longer life.



ALMOST TRIPLE OIL DRAINAGE — $2\frac{1}{2}$ times more open area provided by "Equalizer" and Spacer. Also, no plugging.



CHROME FOR LONG LIFE — Faces of steel rails chrome plated for 2 to 4 times longer life.



INDEPENDENT OF GROOVE DEPTH — "Equalizer" does not rely on contact with bottom of groove for pressure or tension.

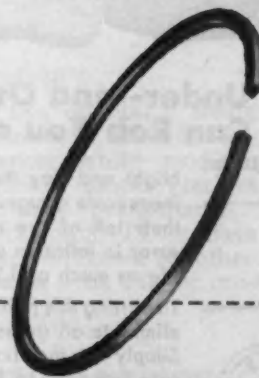
THE *Pedrick* CHROME TOP RING FOR HEAVY DUTY ENGINES

2 TO 4 TIMES LONGER LIFE. The solid hard chrome face lasts up to 4 times longer and also reduces wear on cylinder wall and on all the other rings.

ELIMINATES BREAKAGE. A special alloy, centrifugally cast and heat-treated, is exceptionally tough and stands up without breakage even under the heaviest loads.

HEAT SHAPED. Process developed and used exclusively by Pedrick to insure correct and lasting tension, and to maintain uniform pressure around entire circumference of ring.

POSITIVE 3-WAY SEAL. Twist-Seal design gives point contacts at cylinder wall and upper and lower sides of ring groove—for quick and lasting seals at all three locations.



WILKENING MANUFACTURING CO.

PHILADELPHIA 42, PA.

In Canada: Wilkening Manufacturing Co. (Canada) Ltd., Toronto

Louisville Buses . . .

Continued from Page 124

course is due to the extra time we spend in replacing units and in seeing that original specifications are restored.

Air Compressor Service

Air compressor service is a critical phase of our brake work. For

this reason we have gone to considerable length to make up a testing machine that will expedite run in and testing. Reciprocating compressors are changed at 50,000 miles and rotary at 100,000 miles, at which time they are completely reconditioned. After the rebuild they are run in on the bench for a period of 30 min on open bleed at 1250 rpm. During this time we make checks for oil leaking and for pumping capacity. A 30 min

test is made for passing of oil past the rings. Two cc of oil is the maximum permitted to slip by the rings at this point. Following this, a 30 min test is conducted against 50 lb of pressure with a cut in and cut out period closely resembling the actual operation on the coach. After this 90 min run-in we can be assured that the compressor will operate satisfactorily after installation.

The compressor test stand will handle B-W, Ford Midland and Wagner rotary compressors. The tester consists of a variable speed 5 hp electric motor operating a drive upon which is mounted the compressor body. Another motor powers an oil pump mounted inside the oil reservoir and simulating the oil pressure developed by the coach design. The oil tank is heated electrically to a temperature of 200 deg to simulate the oil temperature on the coach engine.

A "radiator" with thermostatic control of water at 180 deg is mounted above the bench, and lines are provided for connecting to the water inlet and outlet of the compressor head. The discharge line is connected to an oil trap modeled after the oil dome as used on the Wagner rotary type unit, and below the body an outlet is provided for collecting oil discharged past the compressor rings.

The line enters an air tank mounted below the bench, where a T fitting provides for two calibrated discharge jets or orifices graduated to the cfm of the 12 ft B-W compressor and the 10 cu ft Wagner compressor—the two types used by Louisville Transit. (B-W 2-cyl—47 lb—1/16 in. orifice. The 10 ft Wagner and 12 ft B-W at 55 lb—5/65 in. orifice.) This determines the efficiency of each unit as noted by the loss of pressure on the gage connected into the line.

The practices outlined above describe only those phases of our brake maintenance that appear to be somewhat different from the usual routine. Our rebuilding of units and components is very similar to that employed by others.

END

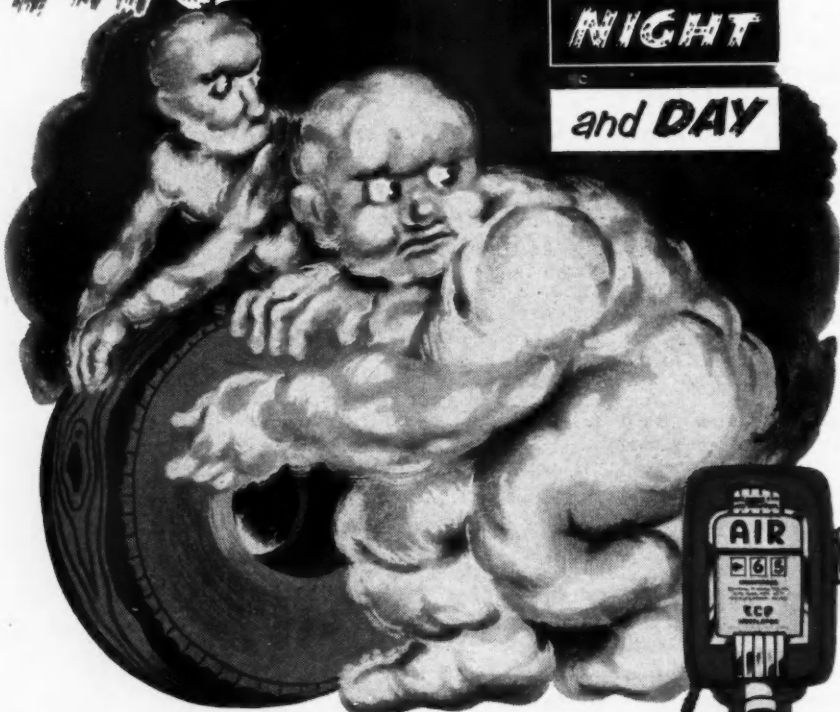
Please Resume Reading Page 74

COMMERCIAL CAR JOURNAL, August, 1954

TIRE THIEVES

NIGHT

and DAY



Under- and Over-Inflation Can Rob You of 1 Tire in 6



Night and day these two robbers, using inaccurate gauges for burglar tools, steal their toll of tire mileage—only a slight error in inflation pressure can reduce tire life as much as 15%.

Thwarting this pair is easy—Eco Tireflators eliminate all guess-work in inflating tires. Simply set the dial to the required pressure (range 5 to 110 lbs.) and apply the chuck. Tires are quickly, automatically, brought to exact pressure.

Eco Tireflators are available in various models—all meet Grade A Testing Specifications of the American Standards Association.



JOHN WOOD COMPANY • Bennett Pump Division • Muskegon, Mich.



TOUGH

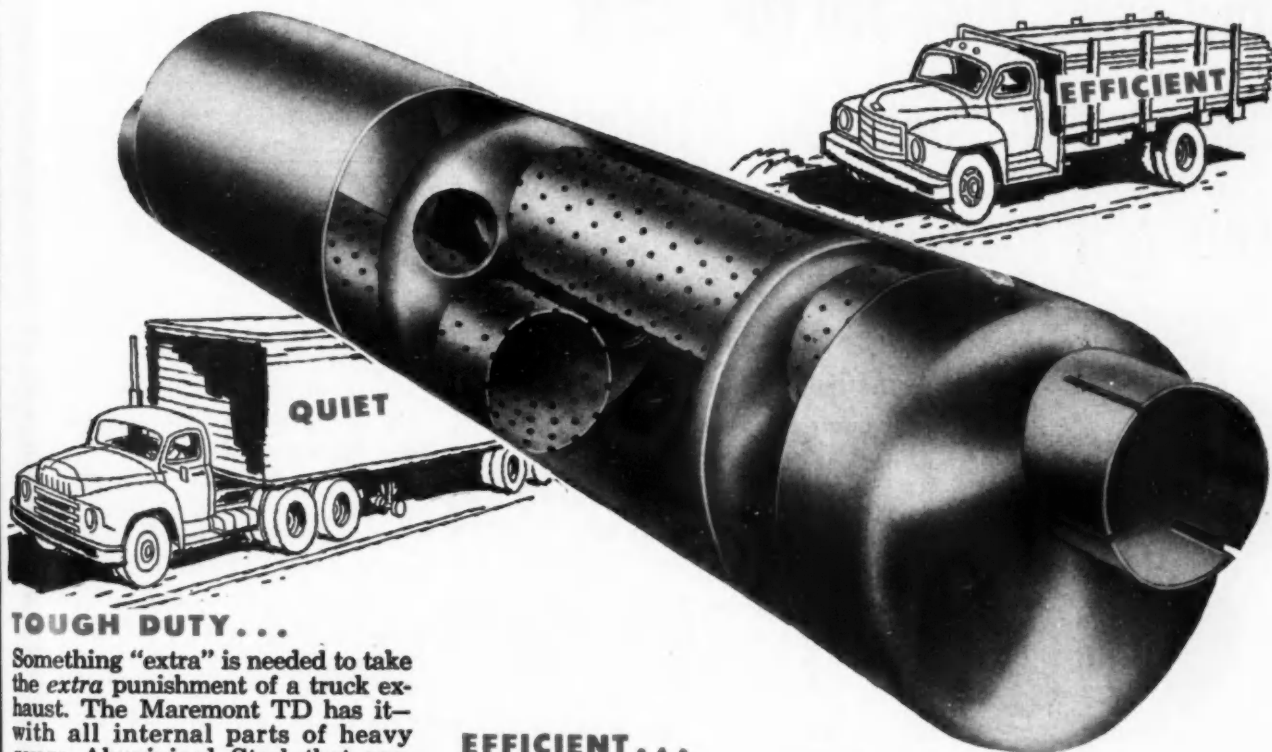
Something "the extra pu haust. The with all in gauge Alum tects the "h defies the 1 hausts that gauge cold-r nized Steel i 2 to 3 times mufflers. AN are fully arc ity. Both en ports are do strength. No with TD for





Exceptional "Hush" Performance for Trucks New MAREMONT **TD** MUFFLER

with the "heart" of long-life Aluminized Steel



TOUGH DUTY...

Something "extra" is needed to take the extra punishment of a truck exhaust. The Maremont TD has it—with all internal parts of heavy gauge Aluminized Steel that protects the "heart" of the muffler... defies the 1250° heat of truck exhausts that burns out even heavier gauge cold-rolled steel. Yes, Aluminized Steel increases TD muffler life 2 to 3 times that of ordinary truck mufflers. AND, all TD muffler parts are fully arc welded for added rigidity. Both end caps and internal supports are dome shaped for greater strength. No other muffler compares with TD for ruggedness.

EFFICIENT...

Fuel-robbing, power-wasting back pressure is cut to an absolute minimum with TD's free-flow design. Tests prove that Maremont TD mufflers operate at 30% to 50% less back pressure than ordinary truck mufflers... provide better engine performance, better gas mileage, more road horsepower. With TD... efficiency goes up... costs go down. No other muffler compares with TD for operating economy.

QUIET...

TD's specially designed tuning chambers filter out high frequency noises while modifying low frequency tones. You get exceptional "hush" performance, because all Maremont TD mufflers operate under 100 Sones. No other muffler compares with TD for quietness.

Maremont's TD line solves every truck operator's muffler problems... in every way
ASK YOUR MAREMONT JOBBER ABOUT THE TD LINE

MAREMONT MUFFLERS

The right design... for every engine!

MAREMONT AUTOMOTIVE PRODUCTS, INC. Chicago 8, Illinois



Brake Test Data Aids Driver Training

Continued from Page 76

not regularly operate the same piece of equipment and are even less aware the brakes are approaching an unsafe condition.

Extended lag time in one instance was due to improperly adjusted brakes, the shoes being worn until they were so far from the

drum that it took an extra .15 to .20 of a second to bring them in contact with the drums.

The over-all lag time is a combination of events, beginning with the foot valve which, if actuated by the old type foot pedal, will increase the lag distance due to the

length of the linkage. However, with the new type treadle valve, this linkage is minimized—consequently, less lag time.

In our equipment it has been principally adjustment. In a few instances the plumbing has had to be straightened out, and in another it was a faulty valve.

Brake Testing Equipment

Our brake testing equipment consists of a four-barrel detonator (Fig. 1) connected electrically to the three-pressure switches (Fig. 2), which are in turn connected to one of the diaphragms at the rear axle.

In the cab, there is a switch on the brake pedal, and a calibrated speedometer which is in turn connected to a Hetzel machine (Fig. 3). We do not depend on a truck speedometer as there is too much variance in the speed, and by using this calibrated speedometer, each test that we made is exactly the same.

Lag Time Effect

By way of illustrating the difference in time and distance, the lag time—being entirely within the braking mechanism—will remain constant, regardless of the speed. The lag distance, however, will vary with the speed. That is, if there is a $\frac{1}{2}$ sec lag time on a vehicle, at a speed of 20 mph—or 29 ft per sec—there would be approximately $14\frac{1}{2}$ ft lag distance. At 30 mph—or 44 ft per sec—the lag distance would be 22 ft.

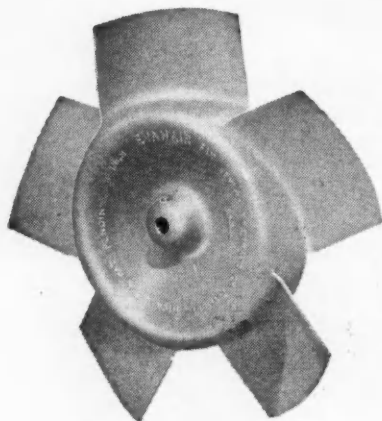
Check New Trucks

A thorough checking and testing of the brake system on newly purchased equipment may save some trouble and expense.

In conducting tests on a new truck, we were accused of undue severity in our tests as the front springs and the front axle were damaged extensively. After contacting the factory representative and having him observe our tests, he checked back and found that the wrong type of front axle had been installed and that it was not designed for the pressures that were to be used in this class of a vehicle.

In another instance in which we (TURN TO PAGE 132, PLEASE)

Another Evans truck and bus heater feature that simplifies your maintenance ... cuts your operating costs



The indestructible Evanair fan that will not get out of shape ... will not get out of balance ... gives you exceptional heater performance

Evans engineering solves one of your maintenance problems:

Ordinary tin fans get out of shape and out of balance and require many replacements. Evanair die cast fans take punishment that no other fans withstand. In addition, they are:

Light—less than half the weight of ordinary fans—giving less bearing load and longer motor life.

Balanced—accurately die cast for precision static and dynamic balance.

Rugged—no chipping, cracking or bending under rough handling.

Quiet—smooth surfaces and airfoil blades provide quiet operation.

Efficient—greater air delivery with less power from accurate airfoil blades of modern aerodynamic design.

Compact—more volume delivered in less space.

Unaffected by Temperature—not distorted by heat or cold.

One piece—no parts to work loose.

Tested thoroughly—An Evanair fan chilled to -65° F. was in perfect balance and condition after falling three feet onto a concrete floor!

Thousands of Evanair fans are in dependable daily service. Evans Products Company, Heating & Ventilating Division, Dept. Q-8, Plymouth, Michigan.

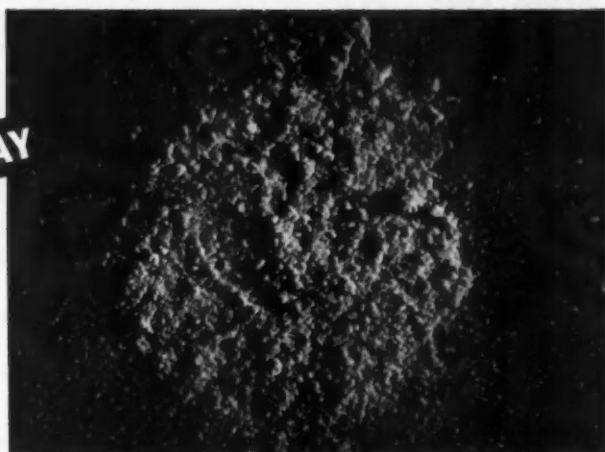


BALANCED HEATING & VENTILATING SYSTEMS FOR EVERY TRUCK AND BUS

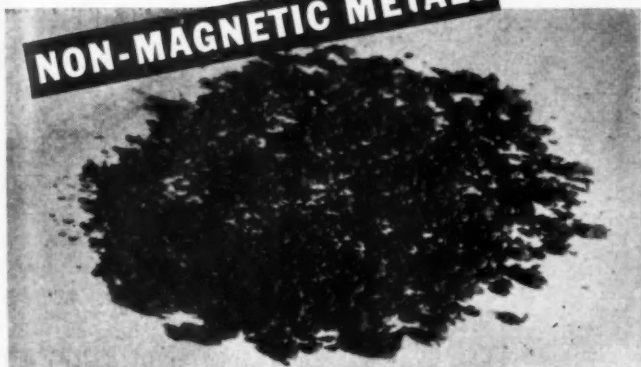


***This stuff
came out of a
transmission!***

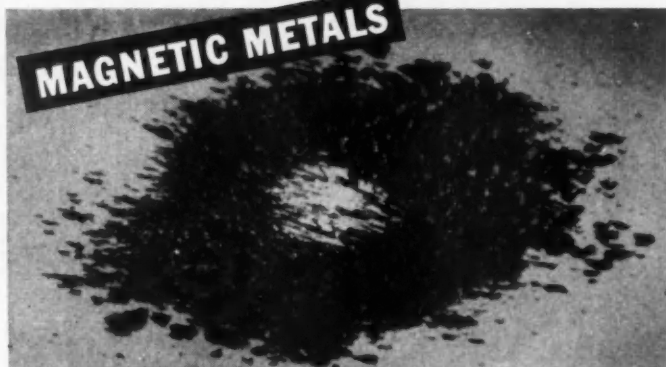
CLAY



NON-MAGNETIC METALS



MAGNETIC METALS



When Carolina Fleets, Incorporated experienced transmission trouble in one of their units, they sent a sample of the lubricant to Pure Oil for a FREE Pure-sure Analysis.

These materials were found to be present in the lubricant. Pure Oil scientists determined the cause of the trouble and recommended a solution to correct it.

How FREE Pure-sure Used oil analysis can save costly repairs

From just one pint of used oil, Pure Oil scientists can determine what may go wrong, what could cause it, and what to do about it now to prevent costly repair bills.

This valuable service—called Pure-sure Used Oil Analysis—is offered FREE to all fleet operators using Pure Oil products.

Now, to show you how valuable this service can be to your fleet operation, Pure Oil will give you a FREE Pure-sure Analysis.

For complete information on how to submit your own sample of used motor oil, call your local Pure Oil Company office or mail the coupon below. Do it today!

**Be sure
with Pure**



Sales Offices located in more than 500 cities, including:

Minneapolis • Madison • Chicago • Columbus, O.
Detroit • Toledo • Cleveland • Memphis • Norfolk
Charlotte • Birmingham • Atlanta • Pensacola
Jacksonville • Miami

This offer must be limited to areas
where Pure Oil products are sold.

The Pure Oil Company, Department CC-48
35 East Wacker Drive, Chicago 1, Illinois

Send me information on how I may obtain a
Pure-sure Analysis of my used motor oil without
cost or obligation.

Name _____
Title _____
Company _____
Address _____
City _____ State _____

Brake Test Data . . .

Continued from Page 130

were unable to get the proper braking efficiency, it was found that one of the drums was out-of-round, and the factory completely re-worked the braking system before we accepted the vehicle.

In another test of new equipment we were unable to get the proper

brake adjustment, and the factory representative found that at the time the vehicle was being assembled there had been a change in the co-efficient of lining used. Once again, the company took over and relined the shoes and we had no more difficulty with that vehicle.

So you can see that it is very important that your shop make brake testing and maintenance one of its principal projects, and that the drivers be well informed on the subject of brake lag.

BETTER GOVERNOR PERFORMANCE AT HIGHER ENGINE SPEEDS FINER CALIBRATION

As the trend toward progressively higher engine speeds became apparent, King-Seeley engineers anticipated the need for finer governor calibration.

The spring loaded calibrating scale was discarded. It was replaced by the "Flow Bench", a development which faithfully duplicates actual governor operating conditions. Manifold vacuum and carburetor venturi vacuum can thus be accurately measured for any governor setting and the setting made precisely.

Today every K.S. Vari-Speed Governor is calibrated at two points—no load and full load.

Allowable variation in governed speed at full load has been reduced 45% and at no load, 60%.

Finer calibration together with certain mechanical improvements have increased the dependability of the K-S Governor and its ability to govern without loss of pick-up or engine efficiency.



4653

**KING-SEELEY
CORPORATION**

ANN ARBOR, MICHIGAN

WORLD'S LARGEST MANUFACTURER
OF AUTOMOTIVE GOVERNORS



PLANTS AT ANN ARBOR,
SCIO, YPSILANTI

Train Brake Demonstration

We have just recently conducted a series of classes in which we demonstrated to our drivers and shop personnel the results of brake lag between equipment which had train brakes and equipment which did not have train brakes. When the emergency stops were made without train brakes, naturally, the driver had to co-ordinate his hand and foot to try and bring the trailer in, slightly ahead of the truck. This is rather a difficult maneuver and proved to the drivers that train brakes paid off in the event they should have to make an emergency stop.

In the near future, we plan on making our lag time tests on a tape recorder or pen-motor, and most of these tests will be stationery ones. In this way, the shop can remove all the lag possible before the vehicle is released to be road-tested, as we feel that all brake jobs should be road-tested before they are released to the drivers.

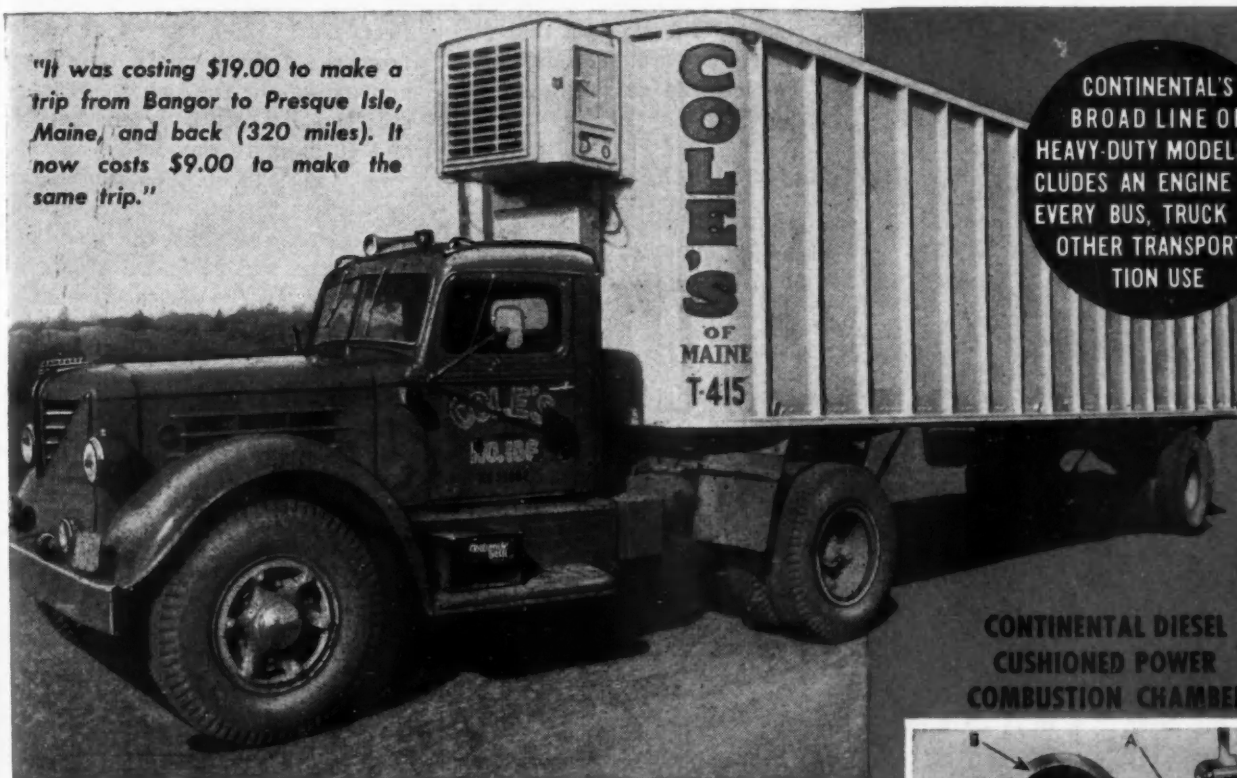
We made a series of tests on a truck-tractor, both loaded and unloaded, in order to establish the lag distance, lag time, total distance, and the difference between the stops made with the clutch engaged and the stops made with the clutch disengaged. All of these tests were made at 30 mph on a practically level stretch of road, and each test result obtained from an equal number of runs in each direction. Fig. 4 shows the difference between emergency stops made with the clutch engaged with the vehicle empty and the vehicle loaded.

Empty Vehicle Test

Some people seem to have the impression that the loaded vehicle will travel much further in an emergency stop than an empty vehicle, but these figures will disprove that theory. In the average stop with an empty truck, the distance between the time when the man depressed the brake pedal and the air arrived at the diaphragm and built up to 4 lb in pressure, was 4 ft, 8½ in., and the time was .11 sec; and the distance between the 4 lb shot and the 40 lb shot was 5 ft, 7 in., and the time was .13 sec.

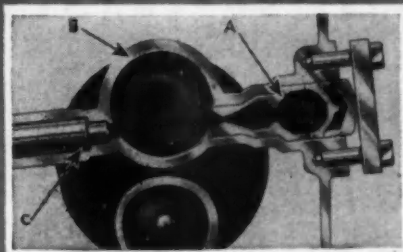
The time between the zero and
(TURN TO PAGE 134, PLEASE)

"It was costing \$19.00 to make a trip from Bangor to Presque Isle, Maine, and back (320 miles). It now costs \$9.00 to make the same trip."

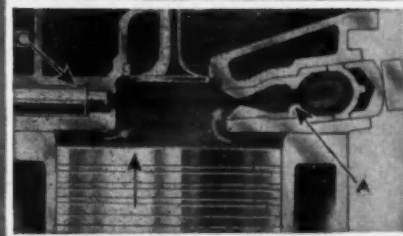


CONTINENTAL'S BROAD LINE OF HEAVY-DUTY MODELS INCLUDES AN ENGINE FOR EVERY BUS, TRUCK AND OTHER TRANSPORTATION USE

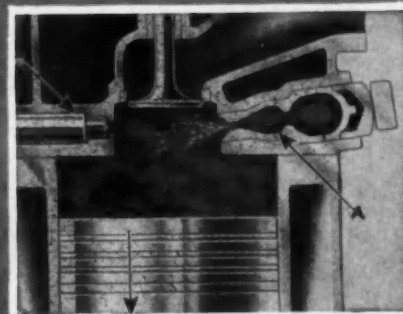
CONTINENTAL DIESEL CUSHIONED POWER COMBUSTION CHAMBER



Top View—INJECTION



Side View—INJECTION



Side View—POWER STROKE

RED SEAL[®] *Cushioned Power* **DIESEL**

Cut Fuel Cost MORE THAN HALF

When Roberts & Turner Machinery Co., Continental distributors at Lewiston, Me., replaced the competitive gasoline engine in this unit with a Red Seal TD-6427 Cushioned Power Diesel, fuel cost for the 320-mile Bangor-Presque Isle round trip dropped 57 per cent. Cole's Express of Maine is only one of a long list of haulers who have followed the Cushioned Power Diesel route to lower ton-mile costs.

See your Continental distributor, or write:

Continental Motors Corporation

MUSKEGON, MICHIGAN

1819 BROADWAY, NEW YORK 23, NEW YORK • 3817 S. SANTA FE AVE., LOS ANGELES 58, CALIF.
6218 CEDAR SPRINGS ROAD, DALLAS 9, TEXAS • 910 S. BOSTON ST., ROOM 1008, TULSA, OKLA.
1252 OAKLEIGH DRIVE, EAST POINT (ATLANTA) GA.



Brake Test Data . . .

Continued from Page 132

40 lb is lag time, and averages .24 of a sec; from the 40 lb to the 80 lb shot, 1.51 seconds or 16 ft, 6 in.; and from the 80 lb shot to a stop was 1.54 sec or 50 ft, 2 in. Added together the total distance was 77 ft, 1 in., while we were traveling at a speed of 30 miles per hour or

44 ft per sec, and the total time for the stop was 3.3 sec. The deceleration rate of this vehicle was 14.4 ft/sec.

Loaded Vehicle Test

The figures which I have just quoted were made with the clutch engaged. Another stop was made under identically the same conditions, but this time with the truck loaded. So when the pedal was depressed by the driver, he fired the

first shot, which was 4 ft, 9 in. from the 4 lb shot. The time was approximately the same, .11 of a sec; the distance between the 4 lb and 40 lb shots was 5 ft, 8 in., the time was .129 seconds, making a total lag time of .24 of a second. The distance between the 40 lb and 80 lb shots was 25 ft, the time was 1.82 seconds. The distance from the 80 lb shot to a stop was 39 ft, 7 in. and the time was 1.11 of a sec. The total distance to a stop was 75 ft, the total time was 3.17 sec. The speed was the same, 30 mph or 44 ft per sec, but the deceleration rate was 15 ft/sec.

Disengaged Clutch Tests

Following this, we made emergency stops under the same conditions as previous, with the exception that we disengaged the clutch on each stop. In other words, when the driver made an emergency stop, his feet hit the clutch and the brake at the same time.

We found the same conditions existed as the ones described previously, with the exception that the empty truck traveled a total distance of 80 ft, 3 in., and decelerated at the rate of 13.8 ft/sec, and the loaded truck stopped in a total distance of 70 ft, 8 in., and decelerated at the rate of 15.3 ft/sec.

So the final analysis of brakes, brake lag and braking goes back to the driver, no matter how well your maintenance department does its work.

END

Please Resume Reading Page 78

Now!
**OIL FILLED
COILS**
*for all 3
systems*

**ALL THESE
ECHLIN EXTRAS
AT NO EXTRA COST
TO YOU!**

- Oil Impregnated Winding for Perfect Insulation
- Vacuum Filled Case Leaves No Air Pockets
- Completely Waterproof to Assure Long Life
- Low Current Draw—Extends Contact Life
- Correct Diameter and Terminal Position for Every Application

The Complete Line of Oil Filled Coils for all Modern Vehicles...
The Finest Coil Ever Designed
Regardless of Price . . . YOURS
at No Premium Price.

ECHLIN
Ignition

CONTACTS
COILS · CONDENSERS
& OTHER AUTOMOTIVE
ELECTRICAL PARTS



ECHLIN MANUFACTURING COMPANY, 234 EAST STREET, NEW HAVEN 5, CONN.



"That will be your last introduction of me as your 'Tandem'!"

COMMERCIAL CAR JOURNAL, August, 1954

, 9 in.
ne was
1 of a
ne 4 lb
in., the
king a
second.
lb and
ne was
om the
t, 7 in.
ec. The
75 ft,
e. The
or 44
on rate

emer-
condi-
ception
tch on
when
y stop,
d the

ons ex-
previ-
at the
al dis-
erated
nd the
al dis-
erated

brakes,
back
w well
t does

ge 78

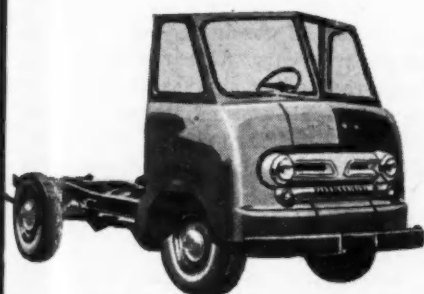


uction

t, 1954



Ford *Triple Economy* Trucks



Ford P-350 Chassis-Windshield, like all Ford Parcel Delivery Chassis, needs no alteration for mounting body.

Ford Parcel Delivery Chassis let you select the exact custom body you need, made to your order in load space, shelving and every other particular. P-350 models rated up to 7,800 lbs. GVW, P-500's to 14,000 lbs. GVW, provide for bodies from 7 to 12½ ft. P-600's illustrated at top of page are available on special order.

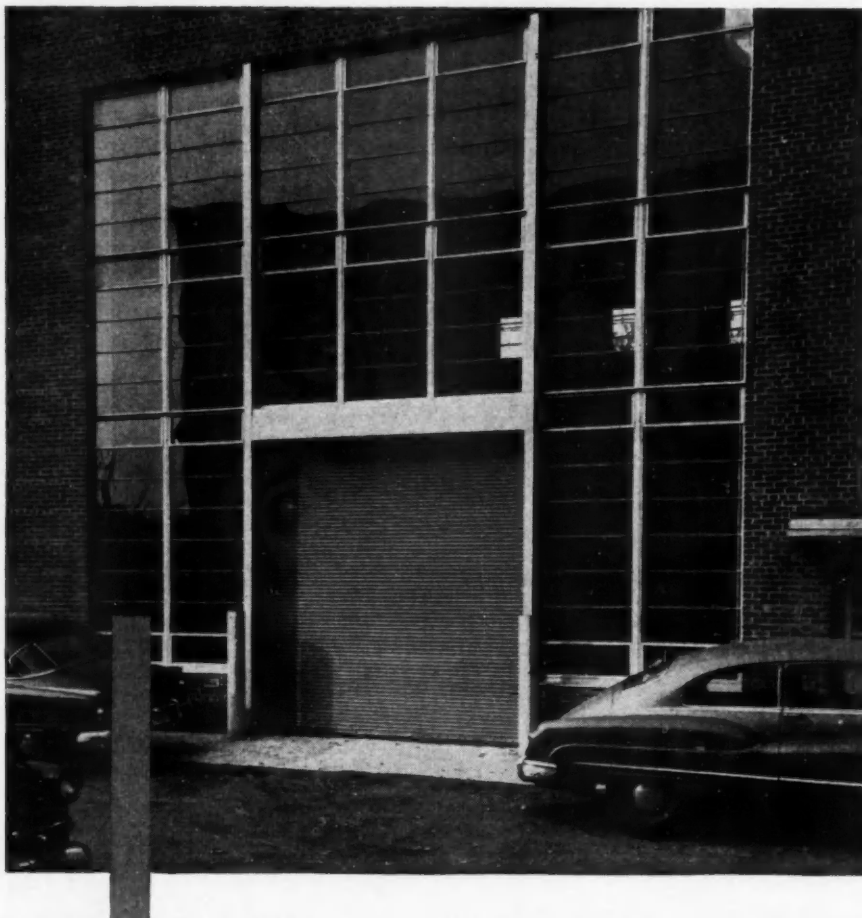
SAVE WITH ALL THREE

1. Gas-Saving Power!
2. Driver-Saving Ease!
3. Money-Saving Capacities!

And . . . Ford Trucks last longer, too!

FORD *TRIPLE ECONOMY* TRUCKS

COMMERCIAL CAR JOURNAL, August, 1954



"Glass Wall" Installation Dramatizes Advantages of Kinnear Rolling Doors



Heavily Galvanized Doubly Protected

Kinnear Steel Rolling Doors are heavily galvanized (1.25 oz. of zinc per sq. foot, as per ASTM standards) to provide a lasting weather resistance. In addition Kinnear Paint Bond, a special phosphate application, provides for easy, thorough paint coverage and lasting paint adhesion.

Light from a huge "glass wall" floods into the new engineering building at Howard University, Washington, D.C., shown above.

The Kinnear Rolling Door centered in this glass wall can be operated or left open without blocking off a single inch of glass area.

The rugged curtain of interlocking steel slats—originated by Kinnear—coils compactly above the opening. All surrounding floor, wall and ceiling space remains clear and usable all the time.

Notice also how the straight lines of the Kinnear curtain add to the modern appeal of this building.

In addition to this space-saving "self-contained action", Kinnear Steel Rolling Doors offer durable, low cost, all-metal protection against intruders, vandals, wind, weather, and fire.

Kinnear Rolling Doors are built in any size, with manual or motor operation. Write for full details.

The KINNEAR Manufacturing Company

FACTORIES:

2100-20 Fields Ave.
Columbus 16, Ohio

1742 Yosemite Ave.
San Francisco 24, Calif.

Offices and Agents in All Principal Cities

SAVING WAYS
IN
DOORWAYS

KINNEAR
ROLLING DOORS

Edwards Trailer Leasing Plan

EDWARDS TRAILER CO., Detroit, has announced a trailer leasing plan said to have the following advantages:

1. No outlay of capital (no down payment or lease prepayment).
2. No distortion of financial statements (no reduction of working capital).
3. Lower cost than outright purchase basis.
4. Full tax deductibility of lease payments.
5. By constant replacement of old equipment, more efficient units remain in use at all times, providing dependability and lower operating costs.
6. Elimination of salvage value risks because of obsolescence.
7. Greater business and profits with same capital.
8. Trailers are tailored for each job, further reducing costs.

For Example

Using a 32-ft standard, steel tandem trailer as an example, the plan would operate as follows:

Such a van under the Edwards Leasing Plan has a lease rental cost of seventy dollars (\$70.00) per month for seventy-two months. After six years replacement is made with a new unit, retiring the old one. Rental payments during this period amount to \$5,040.00.

Says Edwards, the Company "by means of its Leasing Plan is assuming the cost of obsolescence risk at the end of six years. Our studies have shown that after six years the incidence of repair and maintenance costs starts raising beyond the tolerance point for the average fleet operator."

The use and control of maintenance is by lessee as in the normal course of trailer ownership.

The control of original painting and the supply of the original tires is assumed by Edwards as part of tailoring the trailers to the customer's needs. In this respect the customer's requirements may call for a further change in design or specifications which Edwards is prepared to do pursuant to its leasing plan.

TELLS ABOUT A MACK WITH 460,000 MILES, NO WEAR!

UNITED TRANSPORTATION COMPANY

"LEADING THE PARADE IN SERVICE"

TELEPHONES
GASPEE 1-8033
GASPEE 1-8024

425 FOUNTAIN STREET
PROVIDENCE, R. I.

NEW YORK
356 WEST STREET
TEL. CHELSEA 2-9223



January 5, 1954

Cities Service Oil Company
60 Wall Tower
New York 5, New York

Dear Sirs:

My business is freight. I operate a fleet of trucks between New York City and Providence, Rhode Island, over the steep hills of southern New England.

I used the petroleum products of one of your competitors for many years before switching to Cities Service in 1947. I did not realize how essential to a profitable operation the correct gasoline and motor oil could be. But after a few months trial of your gasoline and "C" Series motor oil, MY REPAIR BILLS SHOWED AN AMAZING DECREASE. I began to get more mileage per gallon of gasoline and when my tractors were brought in for periodic overhauls, the mechanics reported that they could find no trace of sludge or other harmful engine deposits.

For my own satisfaction, I let one unit, a Mack, Model EQT, run for 460,000 miles before taking the engine down. Believe it or not, THE ENGINE SHOWED NO APPRECIABLE WEAR and it is still doing an excellent job today. This experiment convinced me that Cities Service Oil Company has no peer in the petroleum field, and I personally would endorse the use of Cities Service gasoline and motor oil anywhere, anytime.

Sincerely,

Leonard Lubin
Leonard Lubin
President

*B.J. - isn't this
an amazing statement?
J.J.M.*

*Research
please
note*

CITIES  SERVICE

QUALITY PETROLEUM PRODUCTS

FLEETMAN'S LIBRARY



(Continued from Page 88)
book on highways can be obtained

from the Superintendent of Documents, U. S. Government Printing

Office, Washington 25, D. C. Price is 20¢ a copy.

Monthly driver booklets, "The Safe Driver," long published by the National Safety Council have been restyled. Each issue now comes in three editions—one for truck drivers, one for bus drivers and one for driver salesmen. For information on how to get "The Safe Driver" booklets, write the Council at 425 North Michigan Ave., Chicago 11, Ill.

Flat rate and service manual for passenger cars is available from the Chilton Co., Chestnut and 56th Sts., Philadelphia 39, Pa. This is the new 1954 edition. Also available is Chilton's Body and Frame Manual, Fifth edition. Flat Rate and Service Manual and Body and Frame Manual together cost \$29.00.

Electrical condulets for hazardous locations are described in this new bulletin. It also includes a listing of hazardous materials and their flash points, pertinent sections of the National Electrical Code, and descriptions of electrical equipment conforming to the code. Ask for Bulletin No. 2655 from Crouse-Hinds Co., Seven North St., Syracuse, N. Y. Also available is Bulletin No. 2660, describing explosion proof electrical equipment.

Metal and fiber washer data is given in this 16-page booklet available from H. K. Metal Craft Mfg. Co., 3775 Tenth Ave., New York 34, N. Y. Information is included on the characteristics of a good washer.

Electrical and ignition parts catalog for 1954 has been announced by Electric Auto-Lite Co. For a copy of this 40-page, fully illustrated booklet, write for Catalog No. S-269B to Electric Auto-Lite Co., Parts and Service Division, Toledo 1, Ohio. Also available is a handy parts wall chart.

Brake and clutch friction problems are discussed in two brief bulletins available from Cop-Sil-Loy Co., Dept. L, El Monte, Cal. Bulletin No. 150 is entitled, "Cause of Deterioration of Friction Materials, Fading Brakes, Slipping Clutches, Expensive Downtime and Dangers Present," and Bulletin No. 200 is headed, "What Elimination of High Heat Does for Friction Materials and Mating Surfaces."

Carburetors for light trucks are included in this new Stromberg Service Parts Catalog, No. 10-D, available for \$1.50 from Bendix Products Division, Bendix Aviation Corp., South Bend, Ind.

(TURN TO PAGE 142, PLEASE)

COMMERCIAL CAR JOURNAL, August, 1954

it
LOOKED LIKE
a good suit in
the store!

You can always make something cheaper and sell it for less. But how does it stand up? At first glance, some hose clamps may LOOK like AERO-SEALS.

But compare! Test that precision AERO-SEAL worm gear drive that puts the squeeze on so gently and evenly . . . in a never-let-go grip that no vibration can shake loose. A twist of the wrist installs or removes — saves time that means money. The stainless steel bands mean long life, corrosion-resistance. Not just a few popular sizes, but a complete size range for every need.

Car owners swear by time-tested AERO-SEALS. Mechanics like to use them. Feature AERO-SEAL assortments because they make more money faster.

Aero-Seal
PRECISION WORM DRIVE
HOSE CLAMPS

ANOTHER **BREEZE** PRODUCT

BREEZE CORPORATIONS, INC.

700 LIBERTY AVE., UNION, N. J.

For Bigger Pay Loads...

specify
GUNITE
WHEELS
 (balanced if desired)

*on your
 new equipment*



Gunite heavy-duty dual truck wheel assembly, complete with Gunite brake drum.

GUNITE DESIGN adds strength...cuts weight

Gunite wheels will take your heaviest loads over the roughest roads. Yet their light weight and balanced assembly give you greatest possible economy and smoother traveling. • Gunite wheels are precisely controlled steel castings... strong, rigid, ready for the toughest abuse. Their tubular spoke design contributes to maximum strength through accurate weight distribution... trims weight down to an economical minimum. • You'll save money by specifying Gunite cast steel wheels on your new trucks, tractors and trailers.



GUNITE

GUNITE FOUNDRIES CORPORATION • Rockford, Illinois

Fleetman's Library

Continued from Page 140

Inert gas welding equipment is covered in this new catalog describing the "Heliweld" process. You can get a copy of Catalog No. ADC 709B by writing Air Reduction Sales Co., 60 East 42nd St., New York 17, N. Y.

Diesel trucks and tractors, both on- and off-highway equipment, are described in this brand new folder you can get by writing Autocar Division, The White Motor Co., Exton, Pa.

Spring making is covered in this attractive booklet just announced by Mather Spring Co., Toledo, Ohio.

Spray guns, pumps and other equipment for handling of lubricants and other materials are covered in this new Catalog No. 35-13 available from Alemite Division, Stewart-Warner Corp., 1826 Diversey Parkway, Chicago 14, Ill.

Set screws are the subject of this catalog describing Set Screw & Mfg. Company's complete line of set screws. Write for a copy of Catalog No. 19

from Set Screw & Mfg. Co., 64 Main St., Bartlett, Ill.

Coated Abrasives is the title of an excellent, 36-page summary of the construction, use and handling of coated abrasive tools. It is available without charge from Technical Sales Promotion Section, Clover Mfg. Co., Norwalk, Conn.

Civil defense manual on restoring highways to serviceable condition after an enemy attack is now available. Civic minded fleet operators should have a copy so as to be able to coordinate their activities with civil defense planning. Copies are 20¢ each from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Ask for Catalog No. FCD 1.6/3:13-3.

Air Force freight guide answers questions often asked by motor carriers on various aspects of hauling U. S. Air Force freight. For a copy of this "Guide for Commercial Carriers," write Headquarters, Air Materiel Command, Wright-Patterson Air Force Base, Ohio, Attention: Chief, Transportation and Packaging Division.

Wire and cable catalog has just been published by Electric Auto-Lite. For a copy, write Sales Manager, Spark Plug Division, The Electric Auto-Lite Co., Toledo, Ohio.

Lamp replacement data for almost all model trucks is included in this new Tung-Sol Lamp and Flasher Servicing Guide. For a copy, write Advertising Dept., Tung-Sol Electric, Inc., 95 Eighth Ave., Newark 4, N. J.

Fuel tanks and sander made by The Lintern Corp. are described in this new catalog. Included are specifications on the "Lintern Step Tank," "Cylsac Saddle Tank," "Crashproof Cylinder Tank" and "Traction Air-Operated Sander." Write the company at Route 20 East, Painesville, Ohio, for a copy.

Transmission movie takes 20 min, shows in color what the advantages are and how it works on Fuller's Model No. B-45 "Roadranger" transmission. Arrangements can be made through local truck dealers for a showing of the film.

The Four Wheel Drive Story is the title of a new, full-size book describing the growth and development of the Four Wheel Drive Auto Co., Clintonville, Wis. Copies are \$4 each from the McGraw-Hill Book Information Service, 327 West 41st St., New York 36, N. Y.

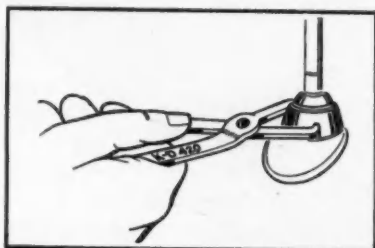
END

Please Resume Reading Page 90

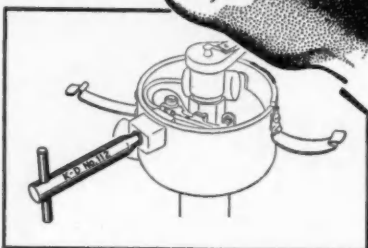
COMMERCIAL CAR JOURNAL, August, 1954

K-D TOOL BULLETIN

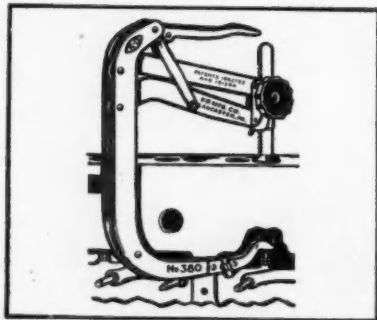
Use these K-D TOOLS on 1954 Models



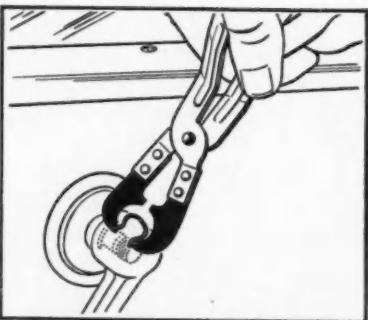
K-D 420 Radio Aerial Pliers—specially designed for installing or removing the cone shaped nut used on fender aerials on Ford-built, Cadillac, Packard.



K-D 112 Chevrolet Distributor Wrench—removes, installs the locking nut of movable points on 1953-54 Chevvy. You need this tool for the job.



K-D 380 Valve Spring Compressor—most popular tool in the country for L-head or overhead valve engines, old or new. Just right for all the new V-8 overhead engines,



K-D 430 Door Handle Spring Remover—pulls the horseshoe retaining spring from inner handles on all GM cars since 1933, all Ford-built since 1951. Fast, sure, safe.

K-D MFG. CO.
LANCASTER, PA.

K-D TOOLS

FREE K-D CATALOG
OVER 100 TOOLS. WRITE



Each K-D Tool is designed with two purposes in mind: 1, to fill a definite need for a special tool & 2, to do the job easily & profitably.



Operating in
of weather t
sun, Massach
Banning, wa
boards" for
Du Pont DU
"SERVICE" w
DULUX
make it flexi
ping. It stand
wipes clean
appearances
So take a t
best always—
du Pont de N



tle of an
of the
dling of
available
cal Sales
Mfg. Co.,

restoring
condition
ow avail-
operators
be able to
with civil
20¢ each
of Docu-
Printing
Ask for

answers
otor car-
f hauling
or a copy
cial Car-
Air Ma-
Patterson
Attention:
ackaging

has just
Auto-Lite.
Manager,
Electric

or almost
d in this
sher Ser-
write Ad-
Electric,
k 4, N. J.

de by The
d in this
specifica-
p Tank,"
rashproof
tion Air-
the com-
ainesville,

s 20 min,
vantages
Fuller's
er" trans-
be made
rs for a

ory is the
k describ-
pment of
Co., Clin-
each from
formation
New York

Dulux enamel on SERVICE trucks



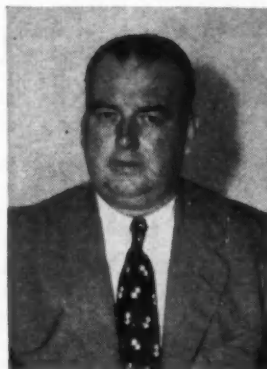
delivers the heavy-duty service they need!



Operating in 26 states, the SERVICE TRUCKING CO. fleet gets into plenty of weather that's tough on truck finishes—Florida salt air, Georgia sun, Massachusetts blizzards, Kansas dust. But SERVICE owner, Gilbert Banning, wants his big trucks to stay attractive—they're "rolling billboards" for the company name. That's why the fleet is finished in Du Pont DULUX Enamel—it takes the punishment and still says "SERVICE" with a smile.

DULUX fights the corrosive action of salt and sun. Special resins make it flexible enough to take hard knocks without cracking or chipping. It stands up to bad weather and rough road conditions . . . then wipes clean and bright again, stays smart for years. DULUX keeps appearances up, costs down!

So take a tip from SERVICE TRUCKING CO. Keep your fleet looking its best always—and in all ways—with Du Pont DULUX Enamel. E. I. du Pont de Nemours & Co. (Inc.), Refinish Sales, Wilmington 98, Del.



GILBERT A. BANNING, owner of SERVICE TRUCKING CO., relies on DULUX enamel to make his company colors known from the terminal in Federalburg, Md., to all 26 states served by his fleet.



HORACE SULLIVAN, paint foreman, likes the way DULUX enamel dries to a high gloss without rubbing. DULUX gets 'em out fast and out to stay, saves shop time with the big 250 unit fleet.

DU PONT

DULUX enamel

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



Trailmobile . . . Custom Designed Trailers

Continued from Page 90

panels that run the full length of the trailer to join the roof and side structures in a watertight band.

2. Rear doors with extruded frames and removable hinges.

3. Rear doors with fuller width and greater height opening.

4. Super-stop safety brakes engi-

neered to wear longer, to dissipate heat quickly and to act immediately with less fade, and having three-quarter inch thick tapered linings.

5. New design bolsters on 12-in. centers, channel-shaped and formed with extra lip on top flange.

6. 12-in. radius corners with a

smooth skin front construction or 18-in. radius corner with 8-in. beveled corner inside allowing a 75-in. loading space across the front.

7. Hat-shaped steel or aluminum root bows especially designed to stabilize the body structure swinging rear headers, hinged on both ends, with removable pins, on the open top.

8. Panels of satin-finish aluminum available with truss side construction, or steel panels with the same trussed construction. Customers may select horizontal corrugated sides of Alclad aluminum with either aluminum or steel side posts. Side structure is riveted to lower outer rail with extruded aluminum rub rail. The exposed post type has aluminum panels and a choice of either aluminum or steel outside posts. High strength gussets double fasten each post to outer rail. They give added protection to posts from rough usage.

9. Three ply, 1/4-in. bonded plywood lining which provides a perfectly smooth interior for cargo protection and easy loading and stacking. For sharp edged or rough cargo, formed steel slats are available for front and side installation. Oak slats 13/16-in. thick, are available spaced apart or solid.

Corrugated aluminum is also available as a CID reefer lining choice.

10. Underframe component is available in steel outer rub rail and bolsters or lightweight aluminum bolsters and rub rail. Modern design bolsters are on 12-in. centers. Underframe component is also available with load distributor frame. Bolsters may be had in 6-in., 8-in. or 10-in. drop.

11. Tongue-and-groove fir and oak floors. Extruded aluminum floors for dry freight. Wood nailing strips are standard. An extruded reefer floor, a one-piece aluminum plate floor, 1/4-in. thick, or nailable steel flooring is available.

12. Running gears located anywhere from the rear end forward in one foot increments.

13. The shiftable tandem for adjusting the trailer suspension position so that it distributes the cargo weight properly between axles.

End

Please Resume Reading Page 92

COMMERCIAL CAR JOURNAL, August, 1954

for greater safety

K-D's big rear guards roll up more safe miles

The big 7" glass lens of these two popular K-D Jumbo Lites shout STOP when lighted. Refracted molded letters . . . red or amber lens . . . fused black background. Reflector designed for correct light distribution . . . 32 cp bulb. Tough, bonderized steel body . . . black enamel . . . stainless steel door. Water-proof . . . dust-proof . . . vibration-proof. Exceeds SAE, ICC and all State specifications.



KD 254

KD 254 Detachable L-shaped bracket. Four mounting bolts on 2" centers . . . permits vertical mounting with bracket at top or bottom of lite . . . or horizontal mounting with bracket at left or right side of lite. Heavy gauge steel arch reinforces bolt holes.



KD 254F

KD 254F Heavy duty mounting pad for dust-proof . . . moisture-proof . . . vibration-proof assembly. Four bolt holes on 8" diameter circle . . . panel opening required 5 1/4".

heavy-duty stop and rear lites for tractor, truck, bus and trailer service

These two K-D Stop and Rear Lites are of heavy gauge reenforced bonderized steel construction . . . diameter 4 1/8", depth 2 5/8" . . . black enamel finish. Removable plug assembly with wire leads attached. Semaphore lens engineered for maximum light output and visibility for safer driving.



KD 201 Universal mounting . . . slotted bracket fits all bolt centers. Designed to replace and modernize present rear lites.

KD B200 Two 1/4" bolts, spaced 2" apart, permits easy mounting for initial installation and replacement.



The Complete Line Lites illustrated are representative of the Complete Line of K-D Saftee Products for cars, trucks and commercial vehicles . . . another example of K-D's single-source service.

K-D LAMP COMPANY

1910 ELM STREET • CINCINNATI 10, OHIO
WAREHOUSES: BOSTON • CHICAGO • LOS ANGELES
NEW YORK • PHILADELPHIA • SEATTLE • TORONTO



ANNOUNCES ALL-PURPOSE BRAKE!

shovels, mixers, machinery, etc.

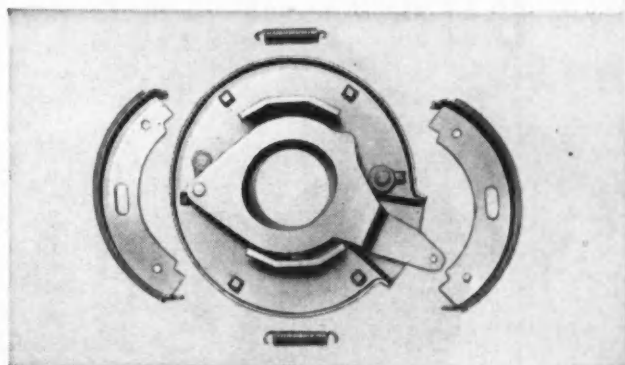
THIS BRAKE ALONE OFFERS YOU THESE 7 ADVANTAGES!

- 1 NEW SIMPLICITY!** Only 8 simple parts. Shoes and springs are completely interchangeable. For instance — brake shoes can be "slapped in." Position of the shoes makes no difference . . . it's *impossible* to install them incorrectly. Simplifies stocking — only 6 different parts required to completely replace the brake.
- 2 NO LUBRICATION REQUIRED!** Maintenance reduced to the absolute minimum. No skilled help needed because it's "fool proof" to service and install. No inside adjustment necessary.
- 3 ENCLOSED DESIGN** — protects against dust, dirt, water, contamination. Prolongs brake life, reduces fire hazard.
- 4 LIGHTEST WEIGHT!** This new development by TDA is in a class by itself. For example: the 13-inch drum size weighs only 40 lbs. as against 80 lbs. for an ordinary band brake!
- 5 LESS COST!** These brakes use lightweight stamped steel shoes of new design as against ordinary heavy, more costly cast shoes. Wear longer with increased braking power.
- 6 NEW BALANCED-TYPE DESIGN!** Exerts equal torque — in both directions. Balanced pressure makes both shoes do same amount of work. Brake linings have uniform wear pattern . . . constant, smooth performance.
- 7 FIVE TIMES LONGER BRAKE LINING WEAR,** proved in actual road and work tests. This means less maintenance costs for operators . . . less inventory to stock. For instance: one manufacturer plans to use *three* of these new brakes to replace *five* types now employed.

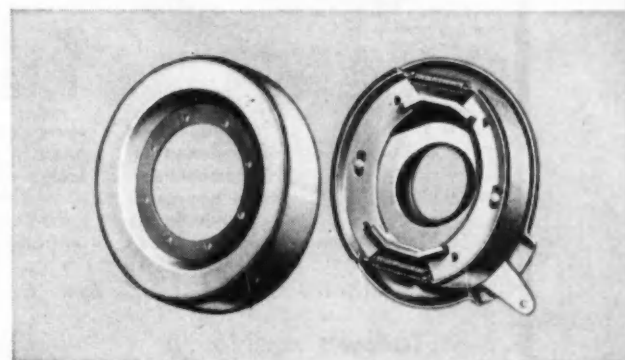
FREE! JUST OUT—HOW TDA CAN HELP YOU
SOLVE YOUR BRAKING PROBLEMS!

Complete new literature now available on this revolutionary new brake. The result of 50 years of Timken-Detroit engineering experience . . . available in all sizes, for any type of work.

If somewhere in your business there is a special braking problem, big or small, we urge you to call on the ingenuity and vast knowledge of TDA engineers to solve it quickly — at low cost and without obligation. An inquiry on your company letterhead will receive immediate attention. Take advantage of this money-saving service now. Just write Timken-Detroit Brake Division, Ashtabula, Ohio.



Look how simple it is! No tricky assembly. Just remove two springs and lift out shoes. Anyone can put it together in minutes. No adjustment of brake required.



Here's the combination that gives this brake its outstanding superiority. Fewer parts to wear, to stock—longer life—less maintenance—lower cost.



action or
-in. bey-
a 75-in.
ront.

aluminum
construc-
the same
customers
rrugated
um with
de posts.
to lower
luminum
type has
choice of
outside
ts double
ail. They
sts from

aded ply-
es a per-
or cargo
ling and
or rough
are avail-
tallation.
are avail-

is also
er lining

onent is
rub rail
nt alumi-
Modern
2-in. cen-
nt is also
tributor
had in

fir and
aluminum
ood nail-
An ex-
piece alu-
thick, or
available.
ated any-
forward

m for ad-
sion posi-
the cargo
axles.

Page 92

ugust, 1954

Specifications

	220 Series	COE Series		
		CO 220	CO 200	CO 190
Engine.....	RRD 501	RRD 501	RD 406 ¹	RD 372 ²
Displacement, cu. in.....	501	501	406	372
Maximum gross hp @ 3000 rpm.....	201	201	140	132
GVW range.....	26/30,000 lb	26/30,000 lb	24/27,000 lb	21/24,000 lb
Maximum GCW.....	65,000 lb	65,000 lb	55,000 lb	50,000 lb
Electrical System.....	12 volt	12 volt	12 volt	12 volt
Standard Transmission.....	5-speed with overdrive	5-speed with overdrive or with direct in fifth	5-speed with overdrive or with direct in fifth	5-speed with overdrive or with direct in fifth
Wheelbases, in.....	142, 157, 175, 193	95, 111, 123, 135, 153		

¹ Optional—RD 450. ² Optional—RD 450 or RD 406.

DON'T TAKE CHANCES!



a new way
to say
"EMERGENCY"

Yankee's new No. 342 360° EMERGENCY LAMP

This new, low cost warning signal gives sure all-'round protection for police cars, fire engines, ambulances, state, county and other emergency vehicles. Brilliant 50 c.p. light flashes on and off—can be seen for miles in

every direction by day or night. Finished in gleaming chrome on solid brass. Weatherproof. Shipped complete with wire, flasher, dash switch, the 342 takes minutes to install. Also with blue or amber lens.

Yankee's new No. 78

ALUMINUM CLEARANCE LIGHT

For a lightweight this rugged armored clearance light can take it like a heavyweight. Aluminum body and base are non-corrosive, ounces lighter than steel or brass. Plastic lens (either red or amber) and mounting holes are identical with so-called "original equipment". Payloads can be larger if the lights are lighter. So make it Yankee "Seventy-Eights"!



Write for new
20 page catalog
No. 254



YANKEE METAL PRODUCTS CORPORATION, Norwalk, Conn.

IHC's New COE Series

Continued from Page 83

cab while truck is in operation. A special safety device keeps the cab tilted at approximately 40 deg while service functions are under way.

Greater safety, comfort, and convenience are offered in the roomy cab. The well-insulated compartment has extra-broad glass areas all around for maximum visibility. Cab floor level is lower, facilitating entrance and exit. Bucket-type seats adjust vertically and horizontally. The driver sits low and far forward, thus having maximum vision at all times. The driver, being located far forward, has an unusually unobstructed view to both right and left at all intersections.

Transmissions

Standard transmission for all the new COE models are heavy-duty 5-speed type, with overdrive or direct in fifth. A selection of optional transmissions and auxiliary transmission also is offered.

Rear axles are single-reduction, with full-floating, spiral-bevel drive. Two-speed rear axles are available as optional equipment. Three-inch-wide front and rear springs and auxiliary springs are standard equipment on all models.

Models in the CO-190 series are available with four-wheel hydraulic or air brakes, the CO-200 and CO-220 series with air brakes only. Hand brakes are propeller-shaft type.

The twelve new models and their gross weight ratings are: CO-190, GVW 21,000 lb; CO-191, GVW 23,000 lb; CO-192, GVW 25,000 lb; CO-195, GVW 24,000 lb, GCW 50,000 lb; CO-200, GVW 24,000 lb; CO-201, GVW 27,000 lb; CO-202, GVW 29,000 lb; CO-205, GVW 27,000 lb, GCW 55,000 lb; CO-220, GVW 26,000 lb; CO-221, GVW 28,000 lb; CO-222, GVW 30,000 lb; CO-225, GVW 30,000 lb, GCW 65,000 lb.

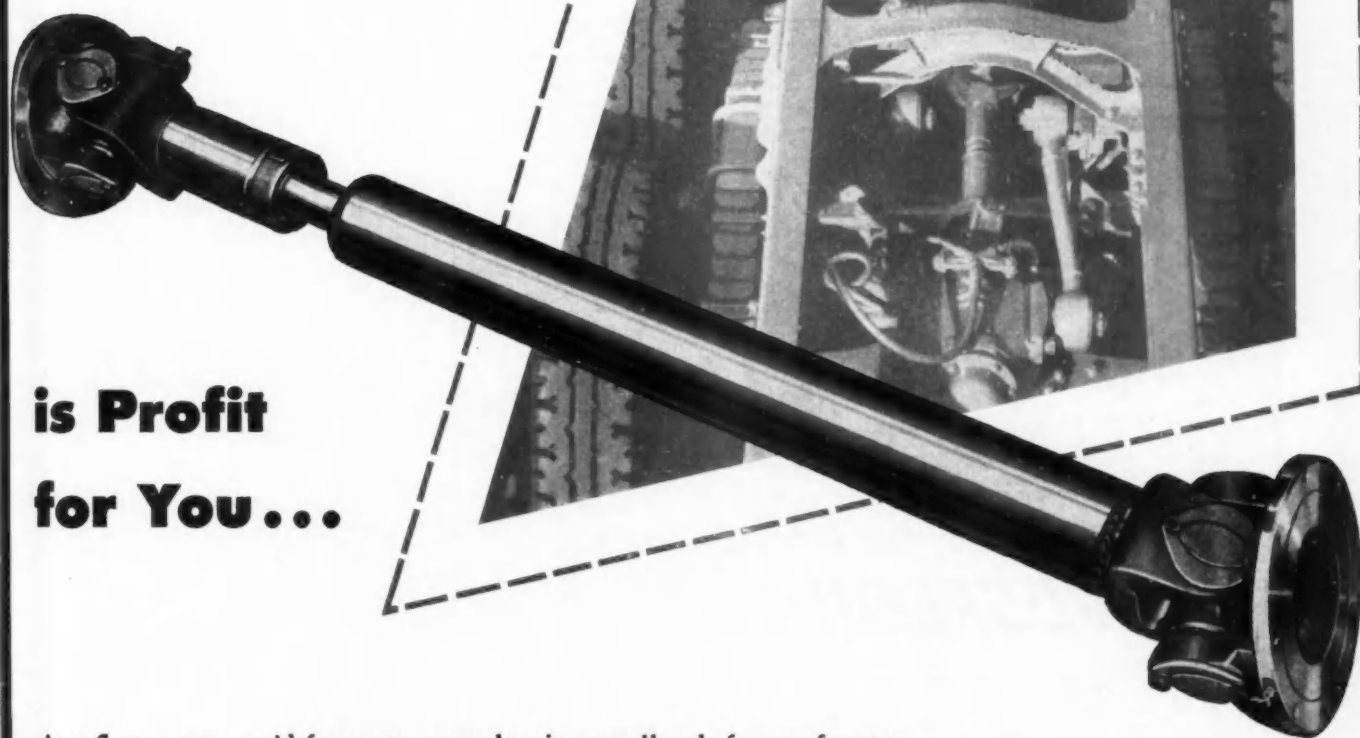
Condensed specifications are given at the top of this page.

End

Please Resume Reading Page 84

Quality

is Profit for You...



As a fleet owner, you'd favor any step taken in propeller shaft manufacture — no matter how minute — if it prevented just one hour's down-time or one costly delay in transit.

So Blood Brothers builds to exacting standards of perfection... of *Quality*... in the vital drive lines that deliver heavy-duty truck and bus horsepower.

You can count on Blood Brothers Propeller Shafts for the ruggedness and smooth performance that add *extra* trouble-free mileage... the *extra* profit of *Quality*.



**BLOOD BROTHERS
MACHINE DIVISION**

ROCKWELL SPRING AND AXLE COMPANY
ALLEGAN, MICHIGAN

UNIVERSAL JOINTS
AND DRIVE LINE
ASSEMBLIES

Akers' Acres . . . Fleet Headquarters

Continued from Page 71

yard, they have also found that this special fork lift is much quicker and much more accurate in the spotting of trailers within the shop. It is powerful enough to handle fully loaded trailers, it's equipped with air brakes and since the driver is right up front and can see where

he's going, it makes the spotting job very easy.

Parts Department

From the trailer shop our tour leads through the parts department which is not as easy as would be indicated on the plan drawing. For

in addition to the area shown, it includes a large balcony and a tremendous storage area in the basement which runs the entire length of the building.

Since Gastonia is not too handy for local parts delivery pick-up and also because of the fact that most of the Akers equipment is heavy-duty specialized equipment, the parts department is unusually complete. It keeps a running perpetual inventory and is geared to supply any part for any vehicle in the fleet at a moment's notice. Please note the dual counter windows from which parts and tools can be drawn either by the trailer shop or the tractor shop.

The balcony also houses the offices of Superintendent of Maintenance, Hugh J. Parham and his associates, including Shuford Hanna, Frank Hough and Howard Allran, who have the rather staggering task of keeping track of the fleet's more than a million dollars worth of tires. The tires themselves are stored in the basement and tire changes and service is accomplished either in the inspection lanes or in the outside area just behind them.

Tractor Shop

From the parts department the visitor then proceeds to the largest of all the areas and which is designated as the tractor shop. While the tractor shop is divided into natural functions, it contains no partitions nor any ceiling supports of any kind. The entire 200 x 110 ft area is completely open, has excellent daylight which is supplemented by continuous fluorescent tubes along the ceiling rafters.

In succession, on one side of the shop are two grease pits immediately accessible to outside overhead doors, a complete frame and front-end alignment machine (also in a pit) and a chassis dynamometer. Beyond and behind the dynamometer is the unit rebuild shop, equipped with all necessary tools for the rebuilding of engines, transmissions, rear axles and small parts. The latter program is carried out in bench space along the outside wall.

Unit Rebuild Shop

The unit rebuild shop also has a
(TURN TO PAGE 152, PLEASE)

OUT OUR WAY



The perfect remedy for slick, oily floors

SOL-SPEEDI-DRI

For clean, slip-proof floors, you can't beat "dry cleaning" with Sol-Speedi-Dri. Industry buys more of it than any other oil and grease absorbent, because pound for pound, dollar for dollar, Sol-Speedi-Dri gives more for the money, all factors considered. Check your jobber, and you'll see what we mean. Send coupon today for free sample and literature.

Warehouse stocks maintained in principal cities of the United States and Canada.

Inquirers in New York, New England, and New Jersey should write to Speedi-Dri Corp. Elsewhere in U.S. to Waverly Petroleum Products Co., 1724 Chestnut St., Phila. 3, Pa. In Canada, G. H. Wood & Company Ltd., Toronto. Branches throughout Canada.

SPEEDI-DRI CORP.
210 W. Washington Sq., Phila. 5, Pa.



FREE SAMPLE:

Fill out the coupon and mail today for free sample and literature.



Name _____

Address _____

City _____

CCJ-8

State _____

Bendix-Eclipse

BRAKE BLOCKS AND LININGS



**The Most Trusted Name
in Braking**

**ASSURES DEPENDABLE
PERFORMANCE**

When it comes to *braking*, the name "Bendix" is one of the most respected names in the trucking industry. That's because truck operators everywhere have long recognized the fact that Bendix brakes are the finest in their field for dependability and long, trouble-free life.

The same is true of Bendix-Eclipse* Brake Blocks and Linings. For the same engineering know-how that has made Bendix the byword in braking has made Bendix-Eclipse Brake Blocks and Linings tops for *dependable performance* in their field, too. Try them on your trucks—you'll be a steady Bendix-Eclipse booster from then on!

*TRADE-MARK

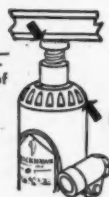


**MARSHALL-ECLIPSE DIVISION OF
TROY, NEW YORK**



New G.V.W. design

NEW TOUGH MALLEABLE IRON TOP CAP supports off-center loading and gives solid rigidity to entire jack.

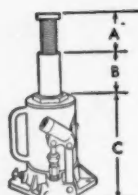


Direction of Load

Main Point of Stress

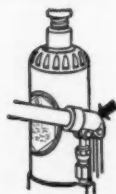


LONG-LIVED PUMP has micro-finished steel housing. Easily replaced with ordinary wrench.



NEW SPECIFICATIONS: (a) longer screw extensions, (b) greater hydraulic lift, (c) lower collapsed heights — handle all axle clearances on all rigs! And here's another plus — Parts 68% interchangeable in 3 to 20-ton models.

HEAT-TREATED CROSS-MILLED SADDLES have teeth sharp as a hound's tooth. Cut through dirt, grease for sure axle grip. Never wear smooth.



IMPROVED OVERSIZE PUMP BEAM withstands tough abuse, sudden shocks and strains. Will last forever!



Outlives the truck it lifts!



Only Blackhawk jacks are tagged with the "Service Proved Seal"

YOU'LL cut your jack costs by standardizing on Blackhawk jacks. That's because the New G.V.W. design gives you **MORE** exclusive features . . . **MORE** stamina . . . **MORE** performance and *much longer life*. Whatever the rig and its G.V.W. (gross vehicle weight), you get the right capacity for today's greater lifting spans and broader range of hydraulic jack applications. No special high-range jacks to buy. There's no need to block up or unload. Order from your Blackhawk Jobber. A product of Blackhawk Mfg. Co., Dept. J-1184, Milwaukee 1, Wis.

BLACKHAWK

Akers' Acres

Continued from Page 150

secret weapon. This is in the form of the tremendous storage area which runs under the entire tractor shop. Here, basic components from scrapped vehicles are stored and held for salvage operations. Only recently put into effect because of the previous lack of storage space, this salvage operation is gradually working into rather substantial proportions. Older components are sent in to the rebuild shop, along with the current units. As schedules permit these older units are cannibalized for usable parts and frequently rebuilt with new or built-up salvaged parts.

At the far corner of the rebuild plant is the engine dynamometer room. Here, all rebuilt engines are broken in; appropriately the room is fitted with relatively sound-proof doors. Of his dynamometer, Mr. Parham has this to say:

Dynamometers

"We have been able to make very good use of both our engine and chassis dynamometers. We seldom run an engine in on the engine dynamometer that we do not find some adjustment or correction needed. We use the chassis dynamometer in place of road testing, for checking lack of power, coolant leaks on engines, etc. By having available, at all hours, the necessary equipment for complete maintenance and repairs, we have been able to save considerable "down time" on equipment held for maintenance and repair."

On the opposite side of the tractor shop is a large area used for normal tractor repairs, including all types of PM inspections. This area is equipped with an exhaust duct built into the floor.

On the outside "Akers' Acres" extends almost as far as the eye can see, for in addition to parking lots for tractors, trailers and employees' vehicles, there is virtually a small city developed by the Akers Realty Co. It includes a drive-in theatre, a suburban shopping center and a number of homes.

END

Please Resume Reading Page 72

BEST

all 'round

PROTECTION



**FINEST OF THE FINE
SINCE 1879**



Free!

"RULES OF THE ROAD"
Folder contains complete driving information, traffic rules, speed laws for all states. Give them to your drivers.

WOLF'S HEAD OIL REFINING CO., INC.
OIL CITY, PA.
New York Office: Glendale 27, N. Y.

Just as an asbestos suit gives all 'round protection to the fireman, WOLF'S HEAD gives all 'round protection to cars and trucks.

WOLF'S HEAD Motor Oil's resistance to heat, friction, and engine contaminants make it the finest motor oil you can use in your fleet. It's 100% Pure Pennsylvania—made entirely with nature's finest crude. 3 extra refining steps give WOLF'S HEAD a stability you won't find in ordinary oils.

And it's scientifically fortified—*cleans as it lubricates.*

For vehicles in severe heavy duty service, WOLF'S HEAD Heavy Duty Motor Oil—100% Pure Pennsylvania—provides exceptional film strength, high detergency and maximum protection against corrosive wear. And it reduces oil consumption to a minimum.

Ask about the free WOLF'S HEAD Laboratory Control Plan. It keeps your trucks rolling with less repairs.

WOLF'S HEAD MOTOR OIL AND LUBES

100% Pure Pennsylvania
Scientifically Fortified



Member, Penna. Grade
Crude Oil Association

Sanders Accident Prevention Fund

Continued from Page 75

ed after all accidents were charged off against the original \$500 was \$187.82.

Thus each point was worth .666 cents so that the accident-free driver who preserved his original ten points (it was ten points when we started the plan) each got

\$6.66. Others received what their point total indicated on the above basis.

Compare this with the latest statement covering from Jan. 1st to June 30th, 1953. This latter statement shows a point total of 365 accruing to the drivers while

the fund balance was a goodly \$437. So the value of each point was \$1.20 and the driver with a perfect record of 12 points got \$14.40. Twenty-nine out of 34 eligible drivers made the perfect score, and \$437 left from \$500 means that accident costs for the six months were only \$63.

While the amount of awards accruing to each driver appears small it is really surprising how the boys put out, how interested they are in accident-free driving. Our system is working.

Accident Trial Board

Whether a driver loses points or not over the six-month period is up to the trial board which reviews all accidents once a month, and votes on them by ballot.

The board consists of five voting members and a non-voting chairman or moderator, who guides the board discussions along the proper channels. The board consists of three driver members and two company representatives, usually myself and Shipping Superintendent Clarence Fournier.

(TURN TO PAGE 159, PLEASE)

100 In., Bumper to Bumper



The new featherweight "Aero Jeep" shows itself off next to the Army's famed standard Jeep. Jeep-producer Willys Motors, Inc., developed the "Aero" to meet the demands of mobility of modern warfare including airborne operations by helicopter or air transport. The new model is 1200 lb lighter, three feet shorter, than its "older brother," but retains the latter's versatility and ruggedness over rough terrain and has 85 per cent interchangeability of parts. Weighing 1457 lb, it can carry a load of more than 100 lb over roads and 300 lb over the roughest terrain. It is only 100 in. from bumper to bumper with top speed about 70 mph. Its all-aluminum body, which weighs only 81 lb, and various aluminum parts as well as magnesium wheels account for most of the weight reduction.

COMMERCIAL CAR JOURNAL, August, 1954

Accident Pr

Con

The driver r every month, are rotated fr The very fact classification membership of them that we stack the board matter of fact are utterly fa judging driver dents. Sometin is even more the company course, anything sonally to d means more bo We like to hav drivers on ou because of t driver involve conceivably, p eyes. But the fellow driver worked the ro ident occur route.

Drivers inv ways appear review board. pear at one t aside until su appear even th four or mor want the driv side of the ca He is provid trucks and if explain his m with a black draw diagram

P or NP Dec

Voting is members up either with 'ventible' or v 'non-prevent cides the acc accident the fined a cert pre-determin scale. A dri in so far as but the reviv the accident somewhere felt that th

COMMERCIAL

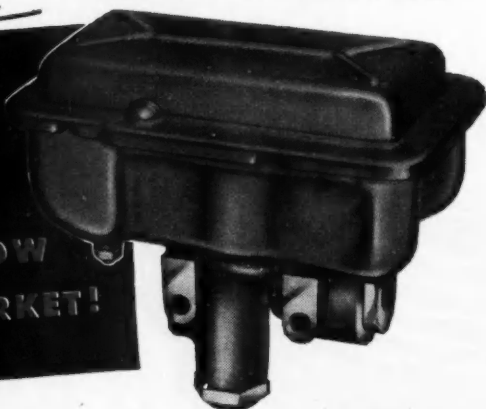
Now! After years of Research... Millions of Miles of On-the-Road Testing—

STEWART-WARNER ANNOUNCES

A REVOLUTIONARY NEW ELECTRIC FUEL PUMP

designed
to out-perform
...out-last—

ANY OTHER NOW
ON THE MARKET!



More efficient—more rugged—more dependable! The Stewart-Warner model 220A SUPER Electric Fuel Pump is the new "big brother" to the famous Stewart-Warner model 110 Electric Fuel Pump.

Improved motor design gives greater efficiency, cooler operation. At full capacity, the new SUPER PUMP operates at only 250 strokes per minute—far fewer than ordinary pumps. Special fast-breaking switch points eliminate problems of arcing, pitting, burning. The result is *longer life*.

No Pistons—No Bearings—No Rotating Parts! The new SUPER PUMP is the

only electric fuel pump using the diaphragm pumping principle. Operating independently of the engine, it works *only* when carburetor needs fuel... saves wear, saves current.

Instant starts in any weather—no vapor lock. Fuel is delivered under pressure the instant you turn the ignition key. Stepped-up pressure means higher efficiency. Delivers 32 gallons or more per hour unrestricted flow.

Start now to cut your "roadside time," maintenance costs and fuel supply problems with this great new SUPER Electric Pump. See your dealer, or write for complete information.

You'll know the new Stewart-Warner Model 220A Super Electric Fuel Pump by its bright green color. The green enamel finish is easy to clean, guards against corrosion.

STEWART-WARNER

Dept. DD-84, 1840 Diversey Parkway, Chicago 14, Ill.

Accident Prevention Fund

Continued from Page 154

The driver members are chosen every month by Mr. Fournier and are rotated from month to month. The very fact that drivers as a classification form the majority membership of the board proves to them that we are not trying to stack the board in our favor. As a matter of fact our driver members are utterly fair and impartial in judging drivers involved in accidents. Sometimes, their judgment is even more critical than that of the company representatives. Of course, anything they can do personally to discourage accidents means more bonus money for them. We like to have these hypercritical drivers on our review board too because of their experience. A driver involved in an accident can, conceivably, pull the wool over our eyes. But they can rarely fool a fellow driver who, like as not, has worked the route on which the accident occurred and knows the route.

Drivers involved in accidents always appear in person before the review board. If they cannot appear at one time, their case is set aside until such time as they can appear even though this be three or four or more months later. We want the driver there to explain his side of the case, to defend himself. He is provided with toy cars and trucks and if words fail to clearly explain his meaning he is provided with a blackboard upon which to draw diagrams.

P or NP Decision

Voting is done by review board members upon a ballot marked either with a "P," meaning 'preventible' or with an "NP" meaning 'non-preventable.' If the vote decides the accident is a preventible accident the driver is automatically fined a certain number of points pre-determined by our penalty scale. A driver may not be guilty in so far as the law is concerned but the review board may classify the accident Preventible because, somewhere along the line, the panel felt that the driver did not exer-

cise the necessary care, caution and defensive driving habits which we expect from the professional driver.

After a driver has been charged with a 'preventible' accident and penalized the proper number of points, and after the case is over we often ask the driver a stock question, "Well, Bill. If confronted with the same situation again what would you do?" The driver invariably comes up with the right an-

swer and so we feel that as far as he is concerned similar accidents in the future will be far less frequent.

We have one purposely tough rule in our regulations. This rule says "ANY DRIVER WHO FAILS TO REPORT AN ACCIDENT OR ANY DAMAGE TO ANY VEHICLE UNDER HIS JURISDICTION WILL AUTOMATICALLY FORFEIT ALL HIS POINTS."

End

Please Resume Reading Page 76



STAKE RACK CONNECTION
No. 2591B



HEAVY DUTY TOWING HOOK
No. 2801-A

"Cleveland Forged"

TRUCK, BUS AND TRAILER HARDWARE

—forged for toughness and strength, unequalled by any other material.

Where better appearance and more dependable service is required, insist on "CLEVELAND" Forged Hardware.



END GATE CHAIN HOOK
No. 2407A



CORNER IRON
No. 2485 Series and 2491 Series



GRAB HOOK
No. 2408½ Series



TRUCK DOOR HOLDER
No. 2445-B



THE CLEVELAND HARDWARE AND FORGING COMPANY

3264 East 79th Street, Cleveland 4, Ohio
Our 72nd Year of Business



SEND COUPON TODAY FOR CATALOG

The Cleveland Hardware and Forging Company
3264 East 79th Street, Cleveland 4, Ohio
Please send me complete catalog No. 24

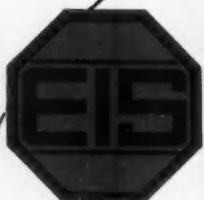
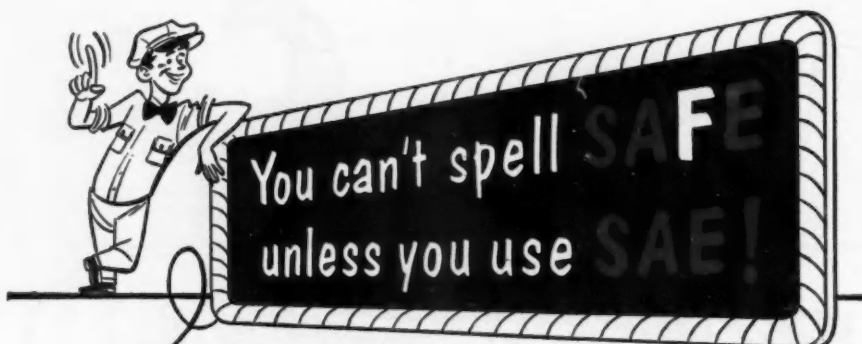
Name _____
Company _____
City _____ Zone _____ State _____



INTRODUCING ...

... Charles Buccini, appointed eastern divisional manager (Woodmonth,

Conn.), Pittsburgh and New England Trucking Co., East McKeesport, Pa.



Moderate and Heavy-Duty SAE BRAKE FLUIDS

MEET AND EXCEED SPECIFICATIONS 70R2 AND 70R1

The same care and exactness that has won leadership for EIS in Brake Parts is also found in EIS Brake Fluids. Both go hand in hand.

For a complete, long-lasting job, install new EIS Master and Wheel Cylinders.

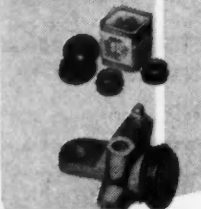
"SUPER 40" (Moderate-Duty SAE-70R2) This brake fluid should only be used for light passenger car duty.
"SUPER 50" (Heavy-Duty SAE-70R1) Recommended for use in all vehicles under all operating conditions.



MASTER CYLINDERS



MASTER AND WHEEL CYLINDER REPAIR KITS



WHEEL CYLINDERS



THE Complete BRAKE PARTS LINE

EIS AUTOMOTIVE CORP., MIDDLETOWN, CONN.

... J. J. White, appointed special mid-west field representative (Omaha, Nebr.), United Van Lines, Inc., St. Louis, Mo.

... A. J. Phaneuf, named field director, Henry C. Horton appointed director of fire prevention and first aid, Fred Walmer appointed assistant to the director, Harold Schmucker named Middle Atlantic region safety supervisor, and James Kidd appointed Valley region safety supervisor, Accident Prevention Dept., Associated Transport, Inc., New York City.

... Harry Schaefer, promoted to manager, Automotive Dept., John Bean Division, Food Machinery & Chemical Corp., Lansing, Mich.



... Everett E. Jones, appointed general operations manager, Miller Transportation, Inc., Kokomo, Ind.

... T. W. Small, appointed Chicago division sales manager, Dunlop Tire & Rubber Corp., Buffalo, N. Y. He was with Dayton Rubber Co.

... George Murphy, as Heil colectomatic sales supervisor, The Heil Co., Milwaukee, Wis. He was with ACF Brill Motors Co., Philadelphia.



... R. H. Tomlinson, promoted to eastern division sales manager, The Galion All-steel Body Co., Galion, Ohio.

... William A. Bresnahan, promoted to assistant general manager and director of interstate cooperation; Edward V. Kiley, promoted to research director; Edward D. Hicks, promoted to field service dept. assistant director, and Oscar L. Davis, appointed midwestern states public relations representative, American Trucking Assns., Washington, D. C.

... Russell A. Wallace, national fleet sales manager, Thompson Trailer Corp., Pikesville, Md.



... Byron J. Showers, appointed manager, Transport Clearings of Arizona. (TURN TO PAGE 162, PLEASE)

"We're

"We know work in the Waterproof other methoo thing from ro

CARBORUN on the auto required by sanding, with

ASK YOU stration of autobody Company

Special mid-
(Omaha,
Inc., St.

field di-
ointed di-
first aid,
istant to
er named
ty super-
nted Val-
Accident
d Trans-



nted gen-
Miller
o, Ind.

Chicago
nlop Tire
N. Y. He
o.

lecto-
Heil Co.,
with ACF
ia.

I. Tomlin-
moted to
n division
anager,
lition All-
ody Co.,
Ohio.

promoted
er and di-
peration;
d to re-
D. Hicks,
dept. as-
L. Davis,
es public
American
n, D. C.



nted man-
f Arizona.
EASE)

August, 1954



"We're turning out better work...faster...the *Flexbac* way"

say **DANIEL SARNO** and **CHARLES SULKALA**,

owners of this progressive Boston, Mass. shop

"We know from experience that we can do up to 35% more work in the same time with the FLEXBAC® Pad and RED-I-CUT® Waterproof Paper Discs—35% more than we could with any other method," they report. "It's the best combination for everything from rough featheredging to the final touch-up on the color."

CARBORUNDUM's FLEXBAC Pad is resilient...hugs every contour on the auto body...eliminates up to 90% of the hand sanding required by conventional methods. May be used for wet or dry sanding, with fast-cutting RED-I-CUT® Waterproof Paper Discs.

ASK YOUR CARBORUNDUM or Jobber Salesman for a demonstration of the work-saving, profit-making FLEXBAC Method of autobody preparation. Call him—or write The Carborundum Company, Dept. CC 90-423, Niagara Falls, New York.



use the

Flexbac

Method

RED-I-CUT® Waterproof Paper Discs—long-lived, fast-cutting, non-peeling.

FLEXBAC® Pad Assembly—ideal for contours as well as flats.

FLEXBAC® Masking Tape—easy-on, holds tight, easy-off.

the superior autobody products by

CARBORUNDUM

REGISTERED TRADE MARK

90-423

COMMERCIAL CAR JOURNAL, August, 1954

161

Introducing . . .

Continued from Page 160

...D. F. McCandlish, promoted to North Central regional manager (Chicago), Air Reduction Sales Co., New York City.

...Paul B. Fischer, appointed Los Angeles, Cal., branch manager, Hall-Scott Motor Division, ACF-Brill Co. He was with Val-Aero Co., Burbank, Cal.

...T. V. Hause, appointed technical service representative, Hartford, Conn., Oakite Products, Inc., New York City.

...Fred N. Dorn, elected chairman of the board of directors, and Laurence S. Carroll, re-elected president, Affiliated Trucking Assns. of New York, Inc., Syracuse, N. Y.

...O. E. Williams, named research and design engineer, tool division, Bonney Forge & Tools Works, Allentown, Pa.

...V. I. Pearson, promoted to general

supervisor, Used Truck Merchandising, motor truck division, International Harvester Co., Chicago.

...R. A. Carlson, promoted to vice president and manager of engineering, Rockford Clutch Division, Borg-Warner Corp., Rockford, Ill.

...C. R. Ison, promoted to Kansas City, Mo., assistant district manager, motor truck division, International Harvester Co., Chicago.

...Phil J. T. Rawlins, appointed chief engineer, Oren Roanoke Corp. (fire trucks), Roanoke, Va. He was chief engineer, Corbitt Co.

...John P. Toohil, promoted to Boston, Mass., district manager, The Firestone Tire & Rubber Co., Akron, Ohio.

...Eugene H. Jarvis, as service engineer, Permite Automotive Parts Division, Aluminum Industries, Inc., Cincinnati, Ohio.



...J. S. Turner, promoted to assistant manager, motor truck district sales operation, Shreveport, La.; L. D. Thorpe, promoted to manager, Fargo, N. D., sales facility; H. E. Kriesel, promoted to manager, Grand Forks, N. D., sales facility; Fred Bjornson, promoted to district manager, Aberdeen, S. D.; L. O. Foss, promoted to assistant manager, Minot, N. D.; and H. A. Field, promoted to district general sales office assistant manager, Peoria, Ill., International Harvester Co., Chicago.

...John R. Heath, promoted to general sales manager, Grizzly Mfg. Division, Paulding, Ohio.

...J. E. Crutchfield, promoted to superintendent of transportation, Birmingham Transit Co., Birmingham, Ala.

...Laurence E. Orgill, elected president, The U. S. Axle Co., Pottstown, Pa.

...Herbert Gross, promoted to vice president in charge of sales, Strick Co., Philadelphia.

...Lawrence E. Vogt, appointed western N. Y., Pa., Md. and D.C. district sales representative, The Flexible Co., Loudonville, Ohio. He was sales manager, ACF-Brill Motors Co.

...Norton J. Osborne, promoted to chief engineer, A.P. Parts Corp., Toledo, Ohio.

(TURN TO PAGE 164, PLEASE)



use only
**FACTORY NEW
GENUINE
BENDIX DRIVES
and
PARTS!**



You can be proud of every repair job when you use only genuine parts. When it comes to servicing Bendix* Drives, be sure to use only *factory new* Bendix Drives and Parts. This means your customers will get the same dependable performance built into every original Bendix Drive—performance proven by over 100,000,000 installations. Insist on *factory new* Bendix Drives and Parts when you order from your distributor.

*REG. U.S. PAT. OFF.

Bendix Drive

ECLIPSE MACHINE DIVISION of **Bendix**

ELMIRA, NEW YORK

Export Sales: Bendix International Division, 205 East 42nd St., New York 17, New York

AVIATION CORPORATION

chandis-
Internat-

to vice
engineer-
n, Borg-

Kansas
manager,
national

ted chief
rp. (fire
as chief

to Bos-
er, The
Akron,



to as-
district
a.; L. D.
Fargo,
Kriesel,
Forks,
Johnson,
r, Aber-
noted to
D.; and
rict gen-
manager,
arvester

to gen-
g. Divi-

d to su-
on, Bir-
ingham,

d presi-
ttstown,

to vice
Strick

ed west-
district
ble Co.,
es man-

noted to
rp., To-

SE)

ust, 1954

Cold weather costs you less when you buy
U.S.I. PERMANENT anti-freeze
in DRUMS . . . at special fleet-owner prices!

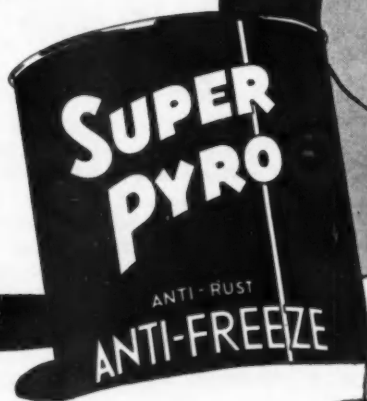
Cheaper packaging costs enable
us to pass on a substantial
saving to bona fide fleet owners!

you're **SAFE** with
U.S.I. Permanent in Drums

*because it's "single phase"—won't separate
or settle out—doesn't need stirring!*

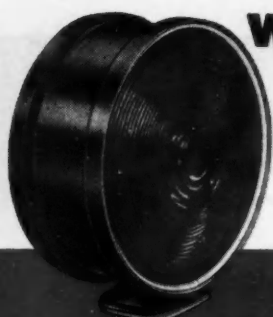
and it gives you the most protection
per dollar of any genuine ethylene
glycol (non-evaporating) anti-freeze!

There's a
"fleet price" for
Super Pyro too!



A call or post card to your jobber will bring him fast with
money-saving facts and figures. OR WRITE DIRECT TO:

AUTOMOTIVE PRODUCTS
MATHIESON CHEMICAL CORPORATION
MATHIESON BUILDING • BALTIMORE, MARYLAND



Why ARROW Class "A" Signal Sets Are Your Best Buy Today

New Arrow "Cab-Master" Switch

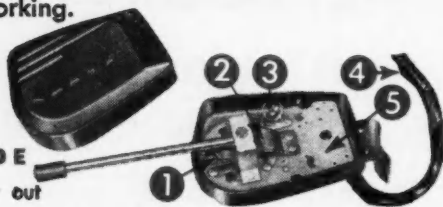


Just the right length for fingertip control. Flips in place with positive, "feel it" action. Positive proof—if the pilot light blinks, you could testify in court your lights were working.

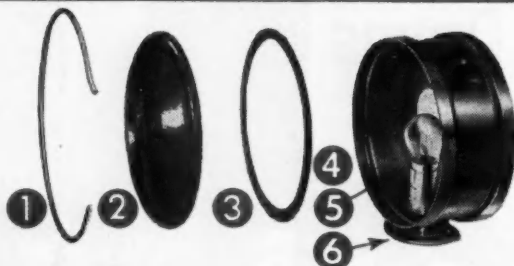
SIMPLY AND STRONGLY MADE

Nothing to burn or wear out—nothing to cause trouble.

Unbreakable handle of 1/4" steel rod. Adjustable 2-screw mounting arrangement. Heavy duty 1/8" thick mounting bracket, reversible for easier mounting.



1. Heavy-duty phosphor-bronze contacts, lubricated for double life.
2. Wide, heavy leaf spring for positive centering—self-cleaning contact.
3. Only one bulb to replace.
4. Positive grounding wire—simple harness.
5. Stable mounting platform.



1. Simple snap ring for bulb replacement.
2. Stimsonite fluted lens—the finest optical quality.
3. Unbreakable gasket material—you never have to replace it.
4. Rimless construction, rustproof shell.
5. No reflector to dull, corrode or get in the way of bulb replacement.
6. Solid 1 1/2" square mounting platform.
7. 30 to 50% lighter weight.

ARROW MAGNALITES always assure the same light output—they're so powerful they need no reflector. The finely made lens is fadeproof—will not crack, craze or draw. Sturdy, rustproof steel shell. Available in double-faced, single-faced or flush-mounted models.

BE SURE TO SEE YOUR ARROW JOBBER TODAY



SAFETY AFTER DARK

Arrow Safety Device Company . Mount Holly, New Jersey

Introducing . . .

Continued from Page 162

. . . H. T. Martin, appointed operations manager, Barnett Detroit Cartage Co., Detroit. He was owner, Michigan Industrial Delivery Lines.

. . . B. M. Kaiser, R. G. Greer and J. F. Adams, transferred to southern, eastern and east-central regional managers, respectively, motor truck division, International Harvester Co., Chicago.

. . . Robert L. Douglas, as fleet maintenance director, Eastern Motor Express, Inc., Terre Haute, Ind.



. . . Fleetwood Gruver, promoted to division manager, Silver Fleet Motor Express, Inc., Louisville, Ky.

. . . Richard C. Allais, promoted to assistant general manager, Great Southern Trucking Co., Jacksonville, Fla.

. . . Leland R. Atherton, elected president, Movers' & Warehousemen's Assn., Washington, D. C.

. . . Arthur E. Nichols, appointed safety director, Consolidated Freightways, Portland, Ore. He was safety and personnel director, The Willet Co., Chicago.

. . . John J. Gill, re-elected president, Rhode Island Truck Owners Assn., Providence, R. I.

. . . Edmonds T. Roberts, appointed northern division manager, Alabama Highway Express, Inc., Birmingham, Ala. He was with Jack Cole Co.

. . . George M. Bunn, appointed eastern sales representative, Kentucky Mfg. Co. (trailers and truck bodies), Louisville, Ky. He will be based at Norristown, Pa. (near Philadelphia).

. . . C. E. Matthews, promoted to Dallas, Tex., division manager, Gould-National Batteries, Inc., St. Paul, Minn.

. . . Caswell O. Robinson, Louis H. Scholl and Harold L. Riggs, promoted to district managers in Dallas, Tex., Kansas City, Mo., and Fargo, N. D., respectively, and Charles C. Leonard and Donald E. Pruss, promoted to assistant district managers in Atlanta, Ga., and Detroit, respectively, U. S. Tires Division, United States Rubber Co., New York City.

ed opera-
roit Cart-
s owner,
Lines.
and J. F.
ern, east-
al man-
uck divi-
ter Co.,



motated to
et Motor

ed to as-
at South-
e, Fla.

ed presi-
usemen's

ed safety
ghtways,
ety and
illet Co.,

resident,
s Assn.,

ppointed
Alabama
ingham,
Co.

ed east-
Kentucky
bodies),
ased at
elphia).

noted to
e, Gould-
t. Paul,

ouis H.
romoted
s, Tex.,
N. D.,
Leonard
d to as-
Atlanta,
y, U. S.
Rubber

ust, 1954



reduced to \$16.32

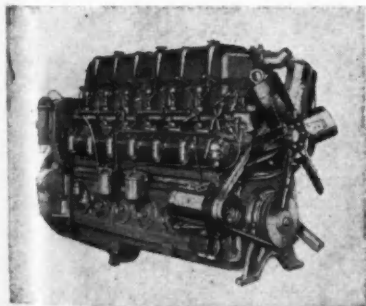
We can't sell you just one. We will sell you 30 to 255 "horses" at the lowest price you can buy diesel power: \$16.32 a horsepower for the 6-cylinder model.

If you know diesel, you know there is nothing else like it. A diesel will take on any job you might give to a gasoline engine — and do it for one-third the cost. Not only that, it is simpler to maintain.

Buyers no longer ask *whether* diesel but *which* diesel. Which will deliver the most horsepower for the money? The most horsepower per pound of weight? Which is the easiest to service?

All three questions have one answer: *the P&H Diesel.*

P&H Diesel Engine Division, Harnischfeger Corporation, Crystal Lake, Ill.



Horsepowers, 30 to 255. Two-cycle. 2, 3, 4, 6-cylinder models. Speeds to 1800 rpm. Stationary, mobile, marine. Diesel-generator sets

THE P & H DIESEL

lowest price per horsepower . . .
lowest weight per horsepower

New Product Descriptions

Continued from Page 87

dle once at the time of unlocking. When the lever is pulled, the tractor disconnects from the kingpin. The lever automatically sets itself for the next coupling. When the tractor is backed into the kingpin, the lever automatically falls into a locked position.

P16. Universal Joint Kit

From: Dana Corp., Toledo, Ohio.

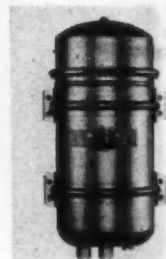
Spicer-made "Mechanics" type, universal joint journal and bearing kits embody many new service features. The Spicer journal bearings in these units have a greater number of

needles (up to 10 more), and the trunnions are of larger diameter. A high quality of nickel chrome moly forgings is used, and the machined surfaces show a very finished degree of tooling. All of the necessary hardware to complete any type of installation is contained in each kit. Nearly all of the kits are of the lubricated type.

P17. Oil Filters

From: Luber-Finer, Inc., Los Angeles, Cal.

Two new model Luber-Finer filter units, Nos. 500-C and 750-C, provide simplified, faster pack replacement by use of an ingeniously



designed clamping ring utilizing a single-bolt closure. Other new features include positive-sealing "O" ring type gasket to assure leak-proof lid closure at all operating pressures, a new type of internal design and construction which provides a multiple seal to eliminate the possibility of oil bypassing the Luber-finer pack, and a one-piece, extruded steel housing. Also embodied in the new models is the unique, time-tested dual safety valve feature. This combination of two safety valves prevents oil drain-back, assures exact crankcase oil reading at all times and stops oil from circulating through unit if lines are reversed or if Luber-finer is otherwise improperly installed.

P18. Tire Demounter

From: Lee Engineering Co., Pawtucket, R. I.

Adjustable and portable tire demounter will handle 15 to 29-in. rim and wheel. It is hydraulically operated and will function in horizontal or vertical position. It measures 41 in. high, 41 in. wide and 42 in. long, weighs about 530 lb.

P19. Decalcomanias

From: Ward's Trucksign Transfers, Detroit.

Transfers for truck signs in nine colors — white, black, yellow, red, blue, orange, green, silver, and gold come in two sizes 18 by 28 in. and 6 by 28 in. Also available are transfer numerals 4 in. high that are black outline with silver center. The company will also quote prices on special designs.

(TURN TO PAGE 168, PLEASE)



Haul bigger payloads for less

95% (PLUS) SAFER TO OPERATE

At last a new hoist which permits you to increase your payload and cut your overhead on single or tandem axle semi-trailers.

Increased payload is made possible by the weight saved on the single hoist and the fewer parts required for mounting it. Also the front mount feature places more weight on the tractor axle and less on the trailer chassis axle.

Lifting the load at the front of the body and eliminating all body overhang ahead of the hoist assures greater stability. In actual use the Penn Telescopic Front Mounted Hoist has shown itself more than 95% safer than other types of hoist installation. The single hoist is more economical as it requires less parts and maintenance.

You can be sure if it's a Penn Body



When purchasing
dump trailers
from your dealer
be sure to specify
Penn Bodies and Hoists

PENN BODY DIVISION

HOCKENSMITH CORPORATION

Call: Jeannette, Pa. LAfayette 3-5401 . . . Pittsburgh, Electric 1-1242 PENN, PA.

and the
meter. A
ome moly
machined
ed degree
ary hard-
of instal-
t. Nearly
ubricated



utilizing a
new fea-
ing "O"
eak-proof
pressures,
esign and
a multi-
sibility of
ner pack,
steel hous-
ew models
ual safety
nation of
oil drain-
kcase oil
stops oil
it if lines
r-finer is
lled.

r
Co., Paw-

tire de-
29-in. rim
y operated
zontal or
res 41 in.
in. long,

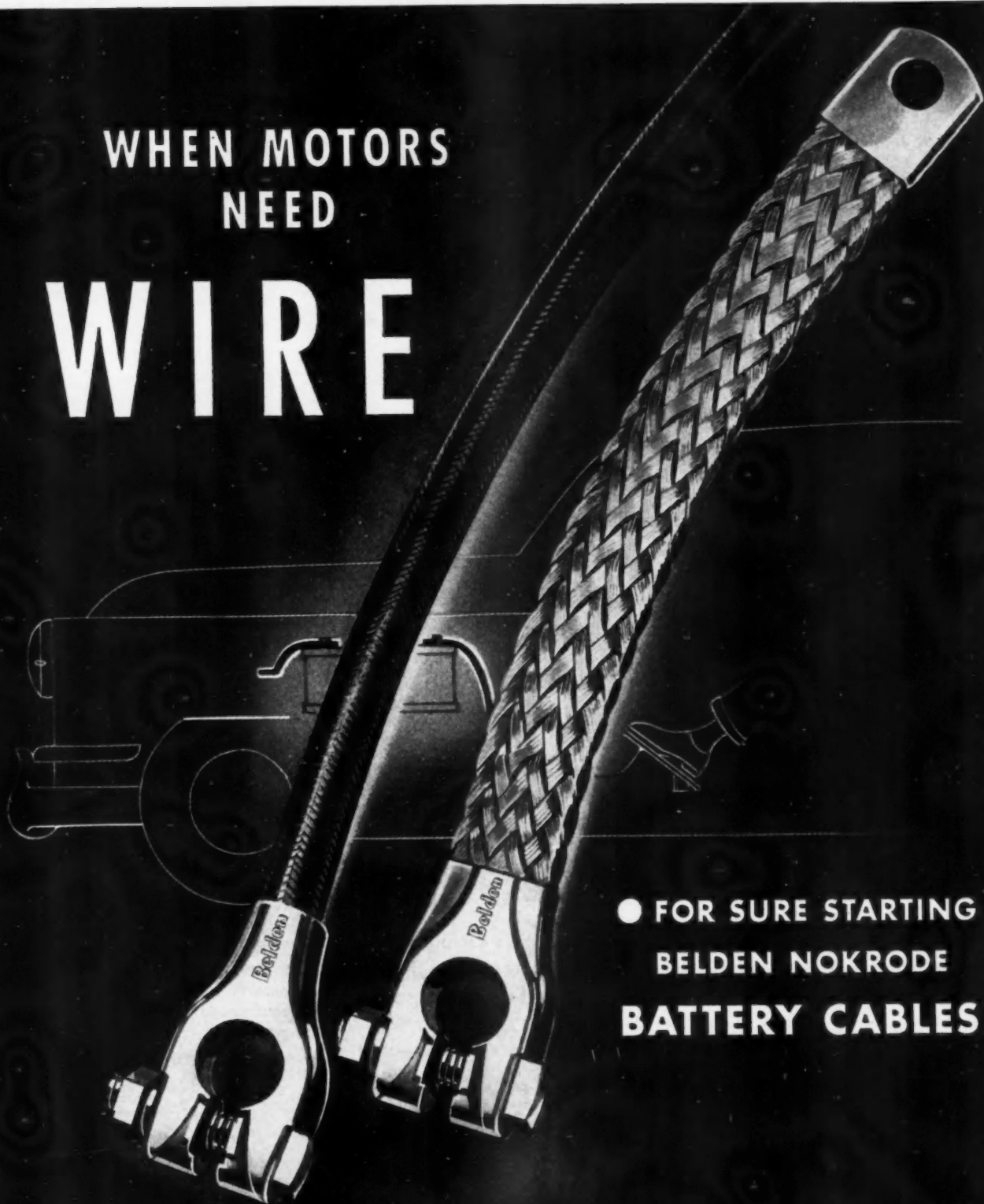
s
Transfers,

s in nine
llow, red,
and gold
8 in. and
e transfer
are black
ter. The
prices on

EASE)

August, 1954

WHEN MOTORS NEED WIRE



● FOR SURE STARTING
BELDEN NOKRODE
BATTERY CABLES

MECHANICS WHO SERVE BEST

Specify **Belden**

WIREMAKER FOR INDUSTRY

New Products

Continued from Page 166

P20. Vehicle Washers

From: Jetomatic, Inc., Ansonia, Conn.

Five new models of vehicle washers have three-cycle automatic operation that requires no compressor to provide 125 psi pressure for (1) the dirt-loosening spray, followed by (2) a deluge of soap and water and (3) a final pressure rinse. The complete

operation involves 7 to 10 min. Design involves no special bay, can roll flat against the wall when not in use, and is completely self-contained including connections for water and electrical supply. The new overhead track models permit unobstructed use of the wash area for other purposes during non-wash periods.

P21. Floor Absorbent

From: The Soakup Corp., Grand Rapids, Mich.

"Soakup" is a oil, water, grease,

acid floor absorbent that comes ready to use in 1½ cu ft bags. A calcined aluminum silica, "Soakup" is said to absorb free flowing liquids in 10 to 15 sec. It is dustless and clean, can be used as a sweeping compound.

P22. Performance Meter

From: Burton-Rogers Co., Cambridge, Mass.

Coming in three models, for 6, 12 and 24 (series-parallel hook-ups) volts, this moving-coil voltmeter pro-



You get perfect gas seals instantly everytime you slip a welding head or cutting attachment into one of the new PREST-O-WELD blowpipes. Rubber "O" rings thrust outward like piston rings to seal without excessive pressure.

In PREST-O-WELD equipment, the "O" rings are never mashed out of shape. They last longer, give extra trouble-free service, and are easily replaced. There are no metal-to-metal seals to maintain. And because the connection nut merely locks the head into position, it needs only hand-tightening. The welding head can be rotated as desired while the flame is burning.

Ask your LINDE jobber for a demonstration today or write for more details. LINDE AIR PRODUCTS COMPANY, a Division of Union Carbide and Carbon Corporation, 30 E. 42nd St., New York 17, N. Y.

PREST-O-WELD

Trade-Mark

Welding Apparatus

get it from your
LINDE JOBBER

The terms "Linde" and "Prest-O-Weld" are registered trade-marks of Union Carbide and Carbon Corporation.



vides for a continuous check on the truck's battery, starter, generator and regulator while the vehicle is in operation. It has two, direct-reading scales in color, one for testing the battery under load and the other for continuous check for regulator and generator.

(TURN TO PAGE 170, PLEASE)

Studebaker Patrol Model

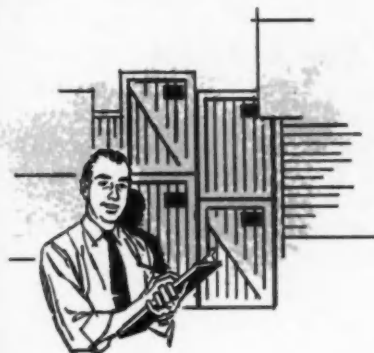


New Studebaker ambulance and patrol car is shown in service as a police emergency vehicle. It also may be fitted for special duty as a highway patrol car with first aid and rescue equipment. It is available in both Champion and Commander models.

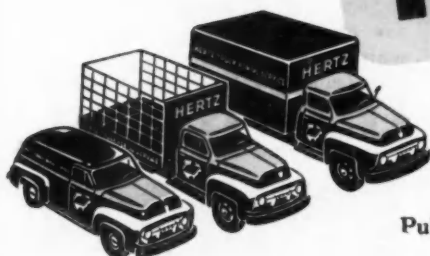
LONG TERM
Service, for
proved plan
ment, and y
tage of ow
than owners

Dept. 584,

COMMERCIAL



when you need an
extra truck
Temporarily!



Everyone knows it's costly to buy and maintain a large fleet of trucks. But—it's more costly and wasteful . . . if they frequently lie idle. With Hertz Truck Rental Service you can maintain a minimum number of your own trucks . . . and for peak periods or emergencies . . . you can rent trucks from Hertz for as long as you want them. All gasoline, oil, Public Liability, Property Damage, Fire and Theft Insurance, and \$100.00 deductible collision protection are included in the low rate.

You furnish only the driver.

Hertz Truck Rental Service is easy to get . . . complete . . . convenient

LONG TERM LEASE. Hertz' Truck Lease Service, for one truck or a fleet, is a proved plan that releases capital investment, and yet gives every single advantage of ownership at a cost often less than ownership.



Who rents from Hertz? Large corporations, small companies and individuals, too, rent Fords or other fine trucks from Hertz. You need only a driver's license and normal identification to rent exactly the kind of truck you need for your specific job. In most of the more than 550 cities in the nationwide Hertz System, fleets of 1/2 ton, 1 ton, 2 ton, pickup, panel, van and stake body trucks are available and are always kept in excellent condition.

How much red tape? None at all! Accredited business firms simply call on the phone, make arrangements, send a driver for the truck. Call your Hertz station any time and rent a truck. In a matter of min-

utes you or your driver will be on the way. You pay only for actual time and mileage . . . with no hidden charges of any kind.

How small the cost? For example: the rate for the use of a 1 1/2 ton van body truck for 10 hours in Danville, Virginia, is only \$8.00, plus 10 cents per mile, including gasoline, oil and insurance. Thus, the total cost for a 30 mile trip is only \$11.00. Rates lower by the week or on a long-term lease. (In some cities, the rates may vary slightly from the above example.)

For complete information about short-term renting or long-term leasing, call your nearest Hertz station, or write to address below. Learn the FACTS! You'll profit!

LOOK IN YOUR TELEPHONE DIRECTORY UNDER "H" FOR YOUR NEAREST HERTZ STATION.

Dept. 584, 218 S. Wabash Ave., Chicago 4, Ill.; phone: WEBster 9-5165

HERTZ Truck-Rental SYSTEM

COMMERCIAL CAR JOURNAL, August, 1954

169

New Products

Continued from Page 168

P23. Con Rod Tool

From: F. A. Wagner & Son, Livermore, Cal.

The "Rodmaster" is a compact apparatus for reconditioning the large ends of automotive and industrial engine connecting rods. It grinds off the surface of rod and cap at the

parting line, then hones out the bore straight and round to original factory standard size. Grinding is done on a cup wheel while the rod or cap is held in a precision clamp. Stock removal is controlled by a wedge device to .001. Bores are honed on a unique hone whose four blades are infinitely adjustable through a range of 1/2 in. Honing material is a special abrasive cloth carried on a spool inside the hone. Three sets of hone blades which come with the machine give it a range from 2 to 3 1/2 in.

KOHLER ENGINES

4-CYCLE
AIR-COOLED



K160

K90 3.6 H.P.
K160 6.6 H.P.
K330 11.8 H.P.
K660 26.8 H.P.



K90

Kohler Engines are engineered and manufactured to the high standards which have made the Kohler mark known for quality the world over.

Power for garden tractors, pumps, sprayers, snow removal equipment, grain elevators, hoists, portable saws, concrete mixers, compressors, industrial lift trucks.

Write for information



K330

Kohler Co., Kohler, Wisconsin
Established 1873



K660

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS
AIR-COOLED ENGINES • PRECISION CONTROLS

P24. Truck Washer

From: Ross & White Co., Chicago.

"Pendant" power washer will permit one man to wash a large size panel truck in approximately 5 min.



The washer, which employs a 45 in. long x 18 in. diameter electrically driven rotary brush, hangs by cable from a mobile system comprising of a compensating balancer, trolley and overhead "H" track assembly. It incorporates its own water spray system, which wets down as well as rinses the surface being washed.

P25. Spray Inks

From: Reynolds Ink, Inc., Cleveland, Ohio.

Stencil inks, packaged in spray cans, are available in seven colors, black, white, yellow, red, blue, green and (TURN TO PAGE 172, PLEASE)

Time to Repaint?



Brilliant orange trucks and construction equipment used by Sterling Construction Co., Ltd., are a familiar sight in many parts of Ontario, Canada. Painting frequently is a must with the company. But in order to assure each machine and truck being painted regularly, the company letters on the date of the last painting as is shown on this truck door panel.

Another famous fleet
adopts KEM
TRANSPORT ENAMEL!

"...Some of this equipment was painted over two years ago and Sherwin-Williams' paints show no sign of fading after repeated washings and exposure to year around elements. In thirty-two years of operation we have never had the success with other paints that we have had with Sherwin-Williams' paints."

---William H. Brown, Assistant
to the President
The U-Drive-It Company,
Columbus, Ohio



U-DRIVE-IT

does it with KEM® TRANSPORT ENAMEL!



APPROVED for leading NATIONAL FLEETS

Sherwin-Williams KEM Transport Enamels are approved and recommended finishes for the fleet equipment of many leading national fleet operators such as the Goodyear Tire & Rubber Company, The Coca-Cola Company, Dad's Root Beer Co., Allied Van Lines, Gray Line Sight-Seeing Tours, City Products Company, Pepsi-Cola Company, U-Drive-It Co. and many others.

Keeping a fleet of trucks in rentable condition at all times puts an extra load on the job for paint. Since first impressions reflect well-maintained equipment, the clean, sparkling look of U-Drive-It trucks goes a long way in keeping rentals up month after month. U-Drive-It approves KEM Transport Enamels for all of its trucks.

But looks are only part of the story. Because KEM Transport Enamels deliver more months of service, the cost of maintenance goes down. Costly lay-ups are reduced. And when repainting is necessary, KEM Transport Enamels help then, too . . . by drying fast even under abnormal conditions of temperature and humidity. Every batch is triple-checked for fast drying so that equipment goes back on the job faster.

How about your fleet? Whether you lease or own, KEM Transport Enamel can bring all the above advantages to your fleet operation—and more. Call your nearest "OK" Automotive Jobber now. Or write: The Sherwin-Williams Co., Automotive Division, Cleveland 1, Ohio (Export Sales Division, Newark, N. J.).



SHERWIN-WILLIAMS

AUTOMOTIVE FINISHES



*Electric brakes
are safer...*



two independent braking systems!

Here's the answer to *safe* truck operation. With electric brakes on the trailer and air or hydraulic on the tractor, you have two completely independent braking systems. Then, even if the air or hydraulic system fails, the electric brakes on the trailer will bring the train to a safe stop. During manual operation, precise synchronization of the two systems provides extra safety, too. When the driver applies the foot pedal, all brakes are actuated simultaneously... no waiting for fluid or air to flow through long hoses. The result is safe, straight-line stops without danger of swerving, skidding, or jack-knifing. Brakes last longer, too, since one set doesn't have to build up before the other operates. The dual safety factor of electric brakes is just one of many reasons leading trucking firms across the country are switching to Warner. For full particulars on price, installation, etc., see your Warner distributor or write Warner Electric Brake & Clutch Company, Beloit, Wisconsin.



ELECTRIC BRAKES

*"your greatest insurance
policy for highway
safety!"*

WARNER ELECTRIC BRAKE & CLUTCH COMPANY, BELOIT, WISCONSIN

New Products

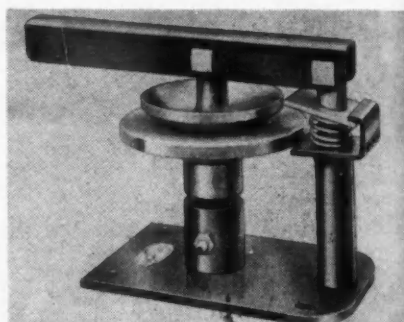
Continued from Page 170

orange. They are a quick way for marking a trucker's name, permit numbers, etc., on a temporary sign to be attached to leased equipment. The inks, which dry almost instantly, are waterproof, weatherproof and oil-proof. They may be removed with alcohol, lacquer thinner or toluol. Truckers may find them an efficient way to comply with ICC and state regulations calling for permanent type of marking on leased equipment.

P26. Bearing Packer

From: William Turk Co., Lynwood, Cal.

Model No. G-31, bench type bearing packer is designed to be used with power or hand-operated grease gun.

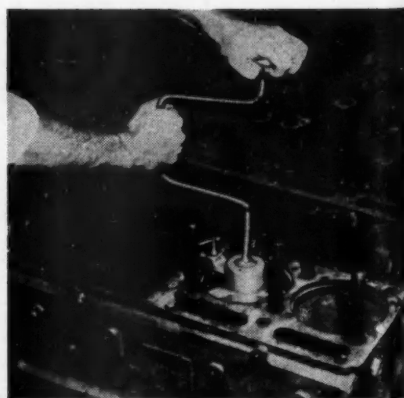


There are two models to service bearings from $\frac{1}{2}$ to 4 in. and from $\frac{1}{2}$ to 8 in. The bearing is placed on the cone-shaped cup, held down with the lever and the lubricant is pumped into the bearing from a power gun or hand operated gun.

P27. Counterboring Tool

From: B. K. Sweeney Mfg. Co., Denver, Colo.

Portable counterboring tool for use in re-machining the cylinder block



counterbores on heavy-duty truck engines locates squarely within the
(TURN TO PAGE 174, PLEASE)

way for
permit
sign to
nt. The
tly, are
nd oil-
ed with
toluol.
efficient
d state
ent type
nt.

ynwood,

bearing
ed with
se gun.



ce bear-
n 1/2 to
on the
with the
pumped
gun or

ool

fg. Co.,

for use
r block



truck en-
ain the
(SE)

ust, 1954

FRAM BEST FOR ANY FLEET

cuts operating costs, maintenance, repairs!

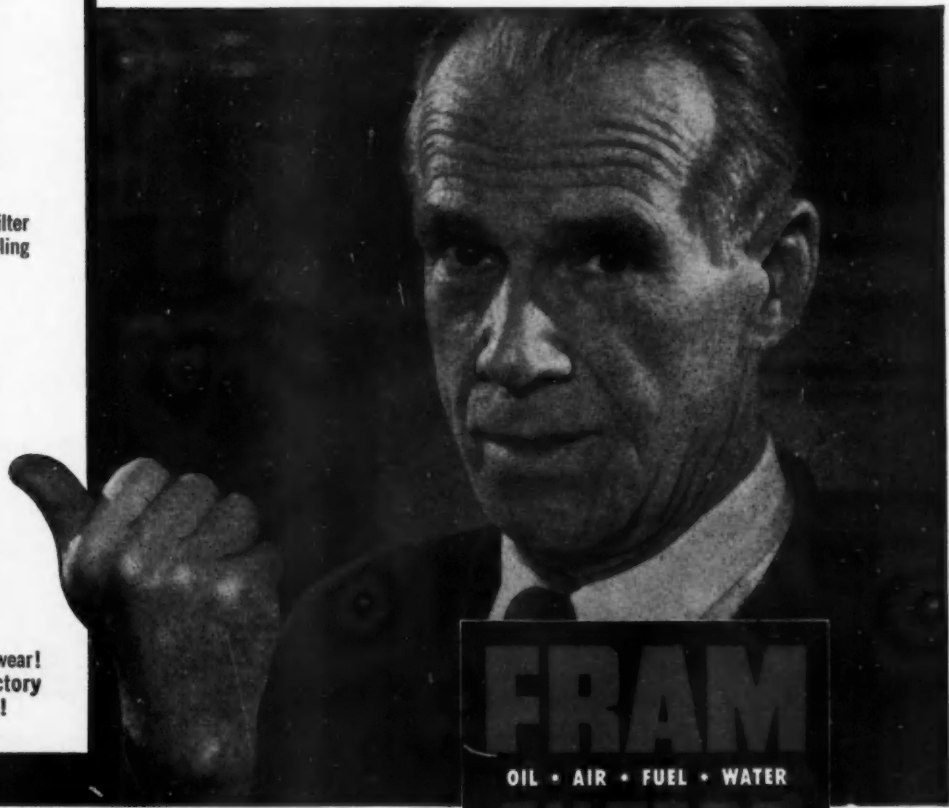
Keep your fleet out of the shop and on the road with FRAM—guaranteed your best bet for longer service at less cost per mile!



FRAM Radiator & Water Filter stops overheating . . . ends cooling system troubles!



FRAM Cartridges cut engine wear! Custom-engineered to factory standards for all your engines!



FRAM CORPORATION, Providence 16, R. I.
Fram Canada Ltd., Stratford, Ont.



New Products

Continued from Page 172

cylinder bore and is held in rigid position by retractable centering pins to assure perpendicular machining of the counterbore. Employing a single, carbide-tipped cutting bit mounted in a depth-of-cut control head, the tool is said to be fast-operating, accurate to well within specified tolerance, and simple to maintain. It is manually operated with a speed handle. Depth

of cut can be checked without removing the tool from the cylinder bore. It can be used with the engine in or out of frame, in the shop or on road calls.

P28. Cleaning Compounds

From: Turco Products, Inc., Los Angeles, Cal.

Three cleaning compounds are now available in polyethylene-protected, heat sealed waterproof five pound packages. They are "Super Steamfas," a heavy-duty steam cleaning com-

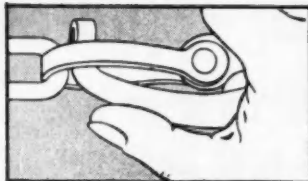
pound, especially formulated to cope with the really tough steam cleaning jobs; "Super Steameze," a light-to-medium-duty steam cleaning material for all-around all-purpose use; and "Turco Oilift," a nonhazardous, easy-to-use material for bleaching and removing grease and oil from concrete floors. The five pound package is a measurable unit of the charge size, thereby eliminating spillage of material.

END

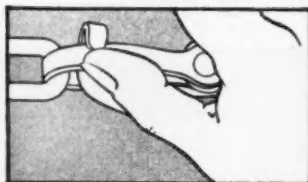
Please Resume Reading Page 88

ALL HODELL TRUCK CHAINS

HAVE ONE  HAND FASTENERS



EASY TO CLOSE



EASY TO OPEN

Nothing to Clog



Heavy-duty, ONE-HAND fasteners are standard on all Hodell Truck Chains. This exclusive, patented feature holds Hodell Chains securely under the roughest and toughest road conditions ... makes it easy to put on or take off Hodell Truck Chains.

All Hodell Bar-Reinforced Truck Chains have the new V-type lug reinforcing bars to give extra traction ... extra wear. Hodell

Truck Chains are made in all sizes of Regular, Extra Heavy and Bar-Reinforced. Hodell Dual Pneumatics come in three types: for outer tire only ... or full-width cross chain to cover both tires ... or with triple side chains and staggered cross chains for increased traction. Be sure to get rugged Hodell Truck Chains for maximum wear and protection. Write us today about your requirements.

HODELL CHAIN COMPANY • Cleveland 3, Ohio

Div. of The National Screw & Mfg. Co.



Fasteners



Hodell Chains



Chester Holts

*Patented

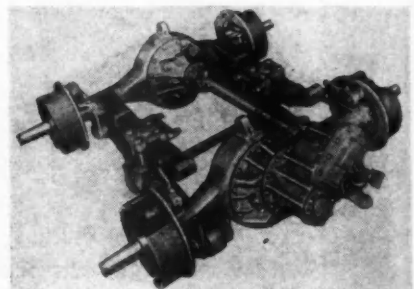


Eaton Offers 32,000 lb Tandem

EATON Manufacturing Company, Cleveland, Ohio, has announced that it is now in volume production of a new Model No. 32M tandem axle, with a load capacity of 32,000 lb on the rear tires at the ground.

The new size bridges the gap between present models of 28,000 and 36,000 lb capacity and meets the legal maximum in 37 states.

A feature of the tandem axle is an inter-axle differential. This third differential in the power divider assures equalized power transmission to the



driving wheels even though wheel speeds may be variable due to road irregularities or differences in tire diameter. They are engineered specifically for tandem operation, and so are not subject to the abnormal stresses or complicated lubricating problems sometimes encountered when conventional axles are installed in tandem service. The single drive line on a normal angle eliminates excess parts and simplifies maintenance.

Power Divider

OTHER Eaton features include a power divider of extremely simple design which is an integral part of the forward axle, and assures distribution of power equally to both axles.

Maximum traction is accomplished by means of a 100 per cent positive differential lock

SHELL ROTELLA OIL

KEEPS ENGINES CLEANER

on 510 buses, cars and trucks
operated by the
South Carolina Electric & Gas Company
Columbia, South Carolina

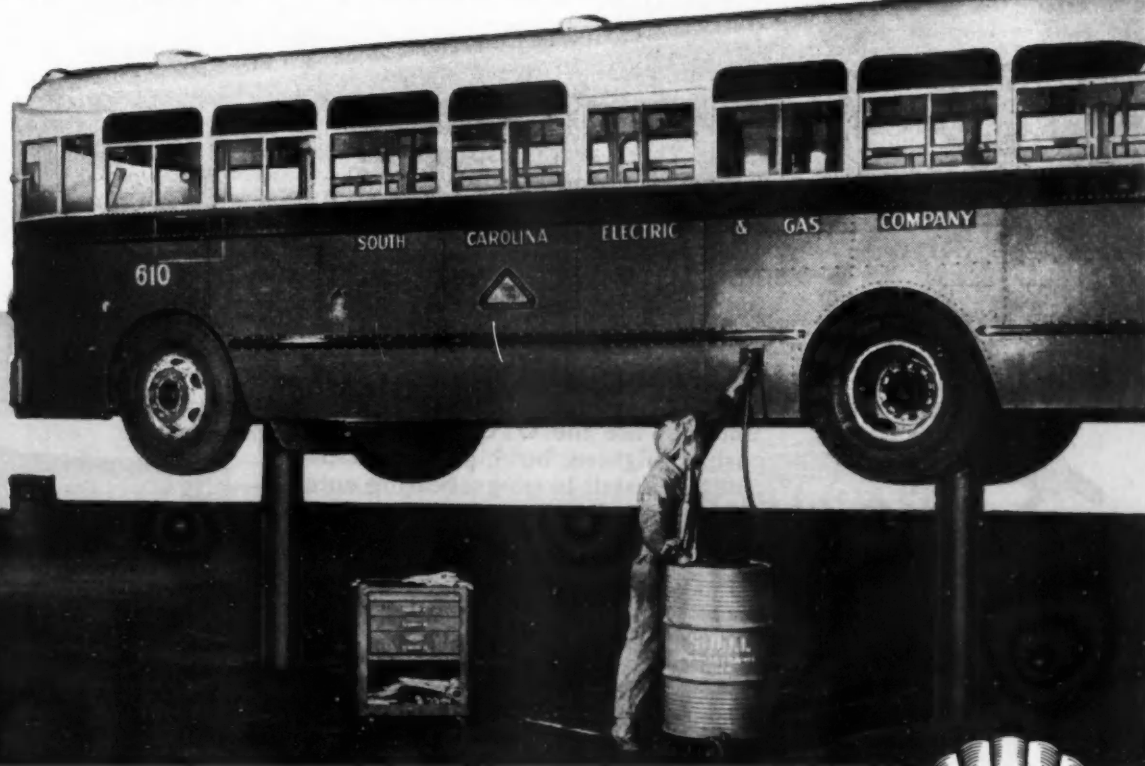
BUSES, cars and trucks of the South Carolina Electric and Gas Company roll up thousands of miles of stop-and-go driving every day of the year. Shell Rotella Oil keeps the engines of this big fleet running smoothly—free of sludge, free of valve and ring sticking.

Shell Rotella Oil fights cylinder wear in bus engine service—wear

caused by incomplete combustion and low-jacket-temperature operation.

With Shell Rotella Oil, engine parts operate more efficiently for longer periods. Extending time between overhauls means substantial savings in labor and engine parts.

Send for the latest technical information on Shell Rotella Oil.



SHELL OIL COMPANY

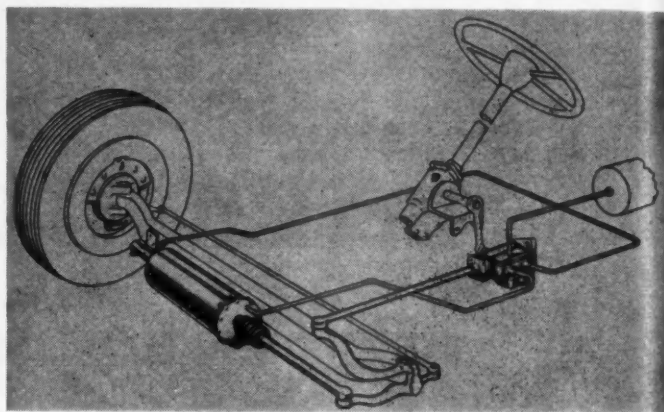
50 WEST 50TH STREET, NEW YORK 20, NEW YORK
100 BUSH STREET, SAN FRANCISCO 6, CALIFORNIA



B-W Announces Air Power Steering

DEVELOPMENT of an air-power steering system for trucks, buses, and off-the-road equipment has been announced by Bendix-Westinghouse Automotive Air Brake Company, Elyria, Ohio.

The air-power steering system uses compressed air supplied by an engine driven air brake compressor as a power source. The equipment is entirely self-



30 day FREE trial



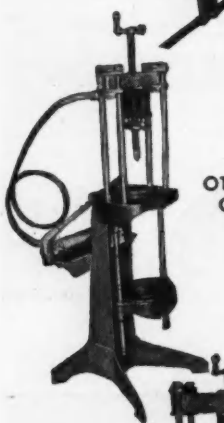
in your own shop

HYDRAULIC PRESS

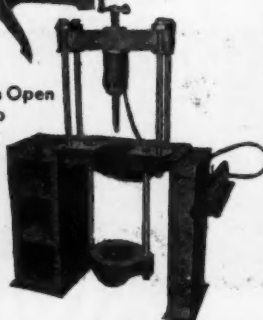
OTC 17½ Ton
Shop Press
Y106



OTC 17½ Ton
Open Throat
Shop Press
Y102



OTC 30 Ton Open
Throat Shop
Press Y300



SELECT ANY ONE OF THE THREE UNITS SHOWN 17½ and 30 TON

It costs you nothing—absolutely nothing—to try one of the famous OTC Hydraulic Press Units in your own shop on your own jobs for up to 30 days. There are no strings attached, no money down, no gimmicks.

Just call your OTC jobber—select the Press you want—and use it for 30 days. Frankly, we think you won't be able to get along without it—but if you're not completely satisfied, your jobber will arrange to take it back with no obligation to you.

You can use the OTC Press to pull, push, straighten, bend, press, spread—pull and install bearings, bearing outer races, gears, shafts, wheels, pinions and so forth.

The Hydraulic Ram is detachable for use with Standard OTC Pullers for use as a portable power unit. Use it to pull and install cylinder sleeves, King Pins, sheaves and on many other jobs. Once you've tried it, you'll find it the most profitable tool in your shop.

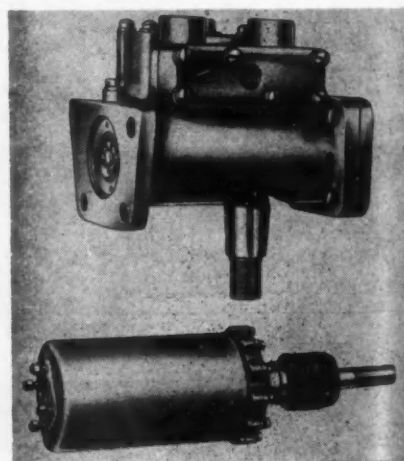
sufficient, as the air compressor has an unlimited replenishing source and only one medium is necessary for both braking and steering.

Normal wheel feel is retained and steering wheel spinback or retrieve remains the same as with manual control. It provides easy steering, maneuverability, extra control and driving comfort for operators of heavy vehicles.

Bendix-Westinghouse states that its new system provides for the addition of power and control units to existing steering mechanisms without disturbing the steering geometry or steering characteristics of the vehicle.

Power Cylinder

THE air-power steering equipment consists primarily of two devices—a double-acting power cylinder acti-



vated by a control valve containing a preloaded spring.

The power cylinder reacts against a fixed point of the front axle beam or of the chassis frame. The control valve operates in response to the force developed between the steering gear Pitman arm and the steering knuckle arm.

The valve functions when the force exceeds the load of the preload spring and air pressure is delivered to the end of the cylinder.

DON'T WAIT—CALL YOUR JOBBER IMMEDIATELY OR WRITE US

OWATONNA TOOL COMPANY
341 CEDAR STREET • OWATONNA, MINNESOTA

Ne



Mak
chas
boob
rugg
any

No
high
you
that
brin
and
job

GR
Hea
big

**CH
ADV
TRUCK**

DUAL-SHO
rubbing. M
—offers gr
increased

COMMERCIAL

New Chevrolet Trucks

deliver more power, more
ruggedness, for less money!



Making sure the truck you buy has plenty of power and chassis ruggedness is good business in any man's book. Getting the money-saving extra power and ruggedness of Chevrolet trucks is *better* business in any man's bookkeeping.

EXTRA POWER MEANS BIGGER SAVINGS

No doubt about it, the extra power you get from new high-compression Chevrolet truck engines means you're going to pay out less for gasoline. Over a year, that adds up to a sizeable savings. Increased power brings time-saving benefits, too—greater acceleration and hill-climbing ability . . . you haul faster, get the job done quicker!

GREATER RUGGEDNESS CUTS OPERATING COSTS

Heavier axle shafts and wheel hubs on two-ton models; bigger, more durable clutches on light- and heavy-duty

models; stronger, more rigid frames on all models. These features pay off in extra-low upkeep costs . . . extra miles of dependable truck life.

But these *while-you-drive* savings aren't all, by a long shot. You even save *when you buy*. For Chevrolet is America's lowest-priced line of trucks. Stop by your Chevrolet dealer's soon to see the "savingest" trucks on the road. He'll show you models ideally suited to your job, with facts to prove you'll get more for your money. Chevrolet Division of General Motors, Detroit 2, Mich.



**MOST TRUSTWORTHY TRUCKS
ON ANY JOB!**

CHEVROLET ADVANCE-DESIGN TRUCK FEATURES

THREE GREAT ENGINES—The new "Jobmaster 261" engine* for extra heavy hauling. The "Thriftmaster 235" or "Loadmaster 235" for light-, medium- and heavy-duty hauling. **NEW TRUCK HYDRA-MATIC TRANSMISSION***—offered on 1/2-, 3/4- and 1-ton models. Heavy-Duty **SYNCHRO-MESH TRANSMISSION**—for fast, smooth shifting. **DIAPHRAGM SPRING CLUTCH**—improved-action engagement. **HYPOID REAR AXLE**—for longer life on all models. **TORQUE-ACTION BRAKES**—on all wheels on light- and medium-duty models. **TWIN-ACTION REAR WHEEL BRAKES**—on heavy-duty models. **NEW RIDE CONTROL SEAT***—eliminates back-rubbing. **NEW, LARGER UNIT-DESIGNED PICKUP AND PLATFORM STAKE BODIES**—give increased load space. **COMFORTMASTER CAB**—offers greater comfort, convenience and safety. **PANORAMIC WINDSHIELD**—for increased driver vision. **WIDE-BASE WHEELS**—for increased tire mileage. **BALL-GEAR STEERING**—easier, safer handling. **ADVANCE-DESIGN STYLING**—rugged, handsome appearance.

*Optional at extra cost. Ride Control Seat is available on all cabs of 1 1/2- and 2-ton models, standard cabs only in other models. "Jobmaster 261" engine available on 2-ton models, truck Hydra-Matic transmission on 1/2-, 3/4- and 1-ton models.

GMC Offers Saginaw Power Steering on Models 100-450

ILLUSTRATED here is a typical layout of the Saginaw heavy duty, linkage-booster type hydraulic power steering system installed as optional equipment on GMC Truck & Coach Div., Models 100-450.

The hydraulic power and actuation units are added to the standard steering gear and linkage as shown, making for a simple installation and ease of maintenance. Since the steering linkage as well as overall steering ratio

remain the same, if the hydraulic system becomes inoperative for any reason steering becomes entirely manual and just as safe to handle as the regular steering gear.

As in the case of power steering for passenger cars, complete "feel" of the road is designed into the system. For normal driving, a load of from three to ten pounds on the steering wheel is all that is required for parking or any steering maneuvers. The initial three-pound pull starts to open the control valve which puts the power cylinder in play.

In addition to power assist, this system has the additional advantage of shock free steering, since the power cylinder is said to absorb much of the normal road shock due to bumps and resists more severe shocks that may tend to twist the wheel out of the driver's hands.

Construction

GMC power steering consists essentially of three major units—the Vickers hydraulic pump, mounted on the front end of the engine, driven by



BARTLETT HYDRAULIC 5th WHEEL

**The Fastest Dock Spotter!
and with less effort, too!**

This BARTLETT Speedy Helper Will: Spot in 5 Minutes instead of 20 . . . Cab Controlled—it saves driver's time climbing in and out of cab to wind up legs . . . Save valuable inches by closer dock parking . . . Guaranteed to cut spotting manpower . . . Pays for itself in ninety days . . . Sturdily Built to Minimize Maintenance . . . Lifts up to 50,000 lbs. 14 inches High.



AMONG THE MANY USERS:

Burlington Truck Lines
Consolidated Freightways
Darling & Company
East Texas Motor Freight
Feet Maintenance
Fruit Belt Motor Service
Gardons Transport
Mines Lumber Company
Huber & Huber
Interstate Motor Lines

The Kroger Company
Lasham Cartage
Liberty Trucking Co.
Mid-States Freight Lines
National Tea Co.
Norwalk Truck Line
Pacific Intermountain Express
Peoria Cartage Co.
Scherer Freight Lines
The Willett Company

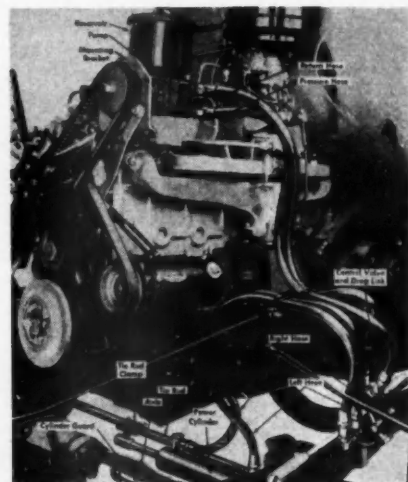


These Units Shipped Anywhere for Local Installation on any make Tractor.

Adapter Pin for Full Automatics available—Swings out of the Way.

BARTLETT TRAILER CORPORATION

3080 ARCHER AVE. • CORNER OF ASHLAND • CHICAGO 8 • VIRGINIA 7-1160



belt; and the Saginaw control valve and power cylinder, mounted in the existing steering linkage. The control valve and its drag link replace the standard drag link in this installation.

One end of the power cylinder is mounted to the front axle while the piston end is clamped securely to the tie-rod. A system of hoses then connects from the pump to the control valve, and from the control valve to the power cylinder.

STENO LOU SAYS THE TROUBLE WITH FALSIES IS A GIRL DOESN'T KNOW WHEN TO BLUSH, SCREAM, SLAP OR SAY "OUCH."

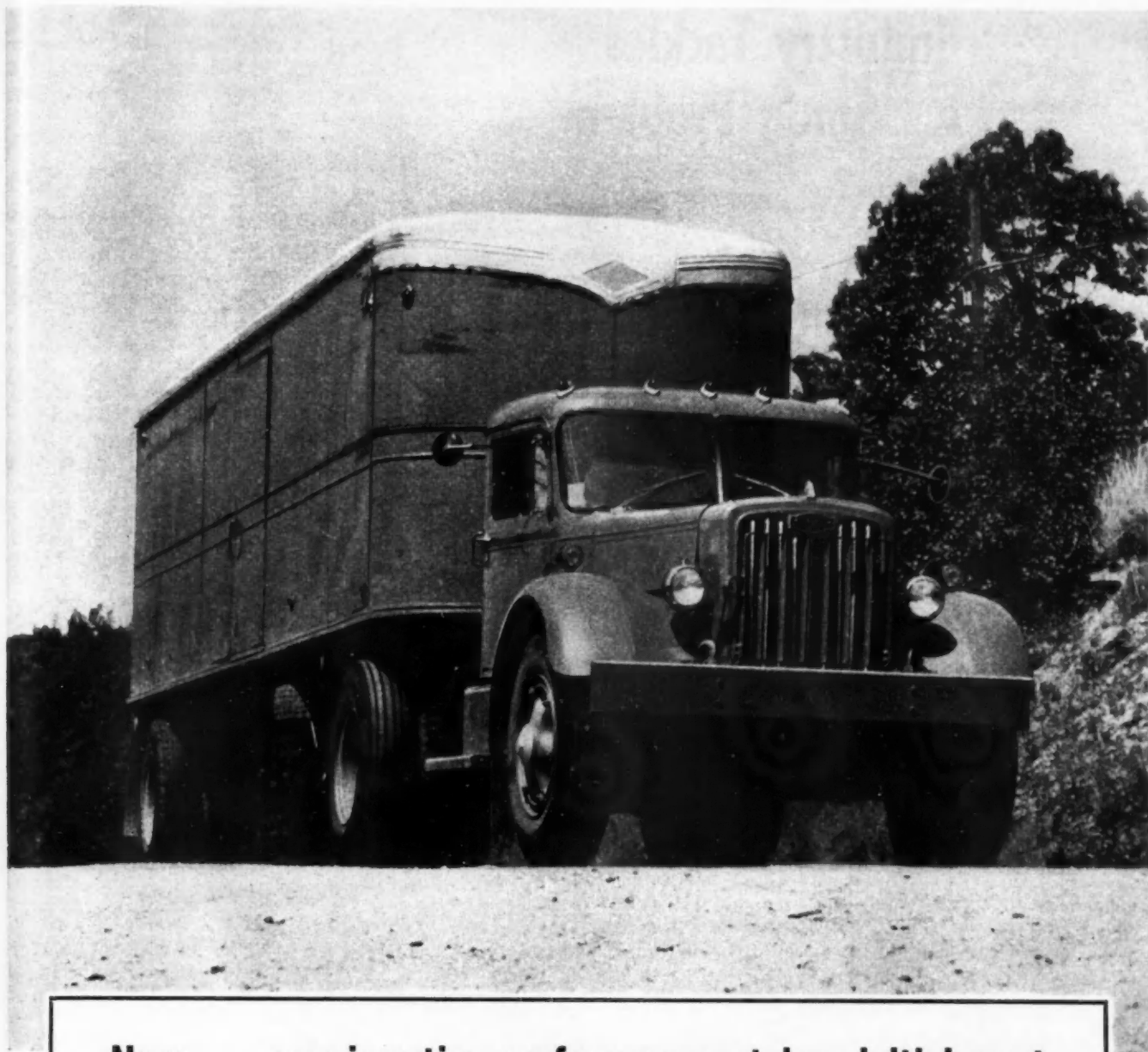
COMMERCIAL CAR JOURNAL, August, 1954

The extra str of new Du yarn now m ards of perfe tires . . . and investment. Super Cor on—the best able for tires the tremend

*TRADE-MARK

DU PON

COMMERCIAL C



Now . . . premium-tire performance at low initial cost made possible by new "Super Cordura" rayon yarn

The extra strength and flex resistance of new Du Pont "Super Cordura" yarn now make possible new standards of performance for rayon cord tires . . . and at a very modest initial investment.

Super Cordura* high tenacity rayon—the best-balanced rayon available for tires—is engineered to take the tremendous strains of compres-

sion flexing that your tire meets every time the wheel revolves. This means greater blowout protection, better performance . . . whether your fleet highballs cross-country, handles heavy-duty work or local deliveries. What's more, "Super Cordura" has higher wet strength than other rayon tire yarns . . . resists the effects of moisture seeping into the body.

Look into these new possibilities of superior performance with economy. Tires built with new "Super Cordura" are being made by a number of leading rubber manufacturers. Be sure to ask your tire dealer about them! E. I. du Pont de Nemours & Co. (Inc.), Textile Fibers Department, Wilmington 98, Delaware.

*TRADE-MARK

DU PONT *Super Cordura* TIRE YARN



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

COMMERCIAL CAR JOURNAL, August, 1954

Industry Tackles LA's Smog Problem

LOS ANGELES has a smog problem. Although regional, it affects a major population area, poses some serious implications that have impelled the automotive industry, through the Automobile Manufacturers Association, to initiate a program of scientific inquiry.

Now that the industry has entered the picture it is imperative for truck fleets to exert their efforts in preventing hysteria and political pressures. Some people are proposing the use of expensive attachments to trucks, claiming these will eliminate exhaust problems. Experts doubt their effec-

tiveness. One medical man recently proposed the theory that lung cancer is caused by exhaust gases in the air. The plain fact is that no one knows at this writing exactly what is responsible for the present conditions, nor what to do about it.

Avoid Hasty Action

During this period it becomes important for everyone concerned—including all truck users—to band together and make sure no hasty or precipitous action is taken politically to penalize the motoring public. There is one example in evidence already. We are told that several organizations promoting catalytic devices and afterburners attached to the exhaust systems have made the claim that such devices will rid the atmosphere of pollution. Trouble is no one yet knows whether the motor car does contribute to the problem nor how effective this avenue would be in eliminating smarting eyes and crop damage. Meanwhile, ill-advised legislation could force fleetmen to invest a sizable amount of money, perhaps \$50 or more per truck for something that may not even be a palliative. To be sure, it does present an attractive one-shot market representing some \$100 million expenditure by the public.

\$50,000 Study

The AMA has awarded a grant of \$50,000 to the Southern California Pollution Foundation to help finance a comprehensive, long-range study of urban air pollution. This study, conducted by a recognized non-profit organization, will seek the answers, letting the chips fall where they may.

But that is only part of what is being done. On December 4, 1953, AMA established the Vehicle Combustion Products Subcommittee (VCP) of the Engineering Advisory Committee (EAC) to make a complete study of the problem as it relates to motor vehicles. Shortly thereafter, a group consisting of eight members of VCP, the secretary and a staff representative of the AMA public relations department visited the technical personnel and research facilities in the Los Angeles area from January 25 to February 4, 1954; and San Francisco on February 5.

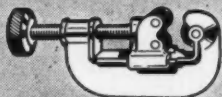
In addition AMA will utilize the services of the Coordinating Research Council (CRC) as well as the laboratories and proving grounds of the automotive industry in a concentrated study of combustion problems and control of exhaust gases.

Use Dorman copper tubing, brass fittings & fuel lines

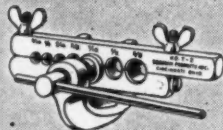


COPPER TUBING

BRASS
FITTINGS



TUBE CUTTER



FLARING TOOL

GAS AND



OIL LINES

Here are a few of the many Dorman Products used by garages, service stations, fleet and body shops each day in repair and maintenance work. Speed up repair jobs by using the quality parts and time-saving service that your Dorman jobber offers.

Look for Dorman Products
Up-Front at your jobber's



The Quality Line

That's Easy to Find



DORMAN PRODUCTS INC. • CINCINNATI 2, OHIO

FITZGERALD METALLIC ALUMINUM-FUSED-OXIDE STEEL ASBESTOS GASKETS

STAND the GAFF

NAPA SYRACUSE WAREHOUSE, INC.
118 HAWLEY AVENUE
SYRACUSE 3, N. Y.

March 14, 1953.

Mr. O.F. Canfield
Fitzgerald Manufacturing Co.
Torrington, Connecticut

**HERE'S
PROOF**

Dear Mr. Canfield,

We have been having some difficulty with 0463 Copper Gaskets used on the city Fleet of Twin Coach Buses.

The average mileage possible on the 0463 Copper is around 6000 before the gaskets fail. Some of the 0463 of Aluminized Steel have gone in excess of 88,000 miles before needing replacement.

Very Truly Yours,

NAPA SYRACUSE WAREHOUSE

L. L. Clark

L. L. Clark, P.A.

FITZGERALD

Metallic Aluminum-Fused-Oxide Steel Asbestos GASKETS pay off in freedom from costly gasket failures. Over 88,000 stop-and-go city bus miles before needing replacement! That's performance plus for a gasket under the extra strain of a modern high compression engine in a city bus fleet.

FITZGERALD GASKETS will pay off for you.

also

GREASE RETAINERS • CORK GASKETS
FITZ-RITE TREATED FIBER GASKETS FOR OIL,
GASOLINE AND WATER CONNECTIONS
COMPLETE SETS FOR MOTOR REBUILDERS

THE FITZGERALD MANUFACTURING CO.
TORRINGTON, CONNECTICUT

Canadian FITZGERALD Ltd., Toronto, Canada • Branch and Warehouse, Los Angeles, Calif.; Chicago, Ill.





Eazor Express, Inc., Pittsburgh, Pa., has begun construction of a new 20-

door terminal in Rochester, N. Y. The fleet just finished one in Buffalo, N. Y.

Shippers Dispatch, Inc., Chicago, has begun operations from its new \$300,000 terminal in Forest View, Ill. It has five other terminals under construction in the area.

Pilot Freight Carriers, Inc., Winston-Salem, N. C., has begun construction of a \$500,000 terminal in Charlotte, N. C. Part of the project is a building to house a parts room, paint shop and body shop.

Port Jervis Trucking Co., Port Jervis, N. Y., has awarded a high school senior a four-year college scholarship for winning the fleet's essay contest.

Kingsway Transports, Ltd., Montreal, Canada, has leased a new terminal in Lyndhurst, N. J., with 5000 sq ft of loading dock.

W. T. Cowan, Baltimore, Md., has begun construction of a new terminal near Bladensburg, Md.

Adley Express Co., New Haven, Conn., has been presented with its fourth successive annual award for cargo loss and damage prevention by Liberty Mutual Insurance Co.

Wilson Freight Forwarding Co., Cincinnati, Ohio, has recently opened a new terminal in Baltimore, Md., and begun operation of a specialized Steel Division in Philadelphia.

Delta Lines, Inc., San Francisco, Cal., has acquired authority to serve Los Angeles, Cal.

Akers Motor Lines, Inc., Gastonia, N. C., opened its new Boston, Mass., terminal with a buffet supper.

Pacific Intermountain Express, Inc., Oakland, Cal., has obtained ICC Division 4 permission to purchase West Coast Fast Freight, Inc., System Truck Service, Inc., System Parts and Equipment Co., Inc., Produce Distributing Co., Eckert Forwarding and Distributing Co., and System Tank Lines, Inc. PIE has announced that all will be merged into the corporation.

Holman Transfer Co., Portland, Ore., has opened two new warehouses there. The fleet is celebrating its 90th anniversary this year.

McLaren Truck Lines, Clinton, Ind., has ICC Division 4 OK to purchase certain operating rights of Motor Express, Inc., Indiana, Ind.

Delta Lines, Inc., San Francisco, Cal., has announced plans to build a new \$700,000 terminal on the East Shore Highway, Emeryville, Cal.

Eastern Motor Express, Inc., Terre Haute, Ind., has officially opened its new terminal in Metuchen, N. J.

Berman's Motor Express, Binghamton, N. Y., has opened its new terminal and main office facilities in Vestal, N. Y.

Spector Motor Service, Inc., Chicago, has started an Over-the-Road Driver's Division. William Lemon is the new division director. Five district driver supervisors will be appointed. The new division will have full charge of over-the-road operation including observance of ICC (TURN TO PAGE 186, PLEASE)

do ALL brake relining with the NEW

Robinson Riveter

Patent Pending

De-rivets and clinches No. 10 rivets or smaller, with normal air supply

Replace worn brake linings of any size, from taxis to twenty-ton trucks, with this new low-cost riveting machine. Using only 100 p.s.i. from your air supply line, the Robinson Riveter delivers over two tons of pressure to drive out old rivets and clinch new ones (from No. 4 to No. 10, inclusive).

The new air cylinder construction will take long, hard use. It is actuated by a new foot operated metering-type treadle valve that is easy to use and gives absolute control over the action.

Semi-portable, this rugged riveter weighs only 60 lbs., and may be moved anywhere in the shop. Ready for immediate delivery at only \$128.50, it comes ready to operate, with treadle valve, hoses, knock-out punch, crimping punch and anvil.

Write for further information now, giving us the name of your jobber.

\$128⁵⁰

F. O. B. DETROIT

Robinson Products, Inc.

16550 WYOMING AVENUE • DETROIT 21, MICHIGAN

UP TO 41% GREATER MILEAGE

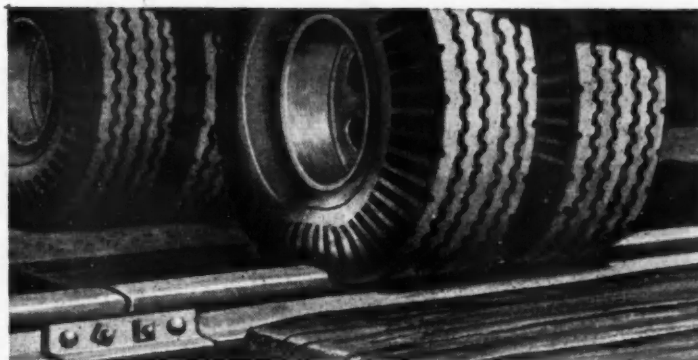
Actual records show that new U. S. Royal Fleetway with exclusive Royalon construction gives up to 41% greater original tread mileage than the former Fleetway design.



FLEETWAY WITH ROYALON*

GREATER BLOWOUT PROTECTION

Royalon gives the U. S. Royal Fleetway much greater strength—increases resistance to blowouts—fends off impacts and shocks that would ruin other tires.



UP TO TWICE AS MANY RECAPS

Royalon carcasses remain just as fresh for their second retread as tires of other constructions are for their first! Because Royalon combines minimum growth with:

UP TO 79% GREATER Flex-Fatigue RESISTANCE!



The first cord ever completely engineered for use in highway tires. Specially processed by United States Rubber Company, Royalon actually gives premium performance at no extra cost. Here is extra tire protection—without extra weight... without extra thickness... without excessive stretch or growth.

Standard of the Industry Since 1936



**AND NOW!
EVEN BETTER
THAN EVER!**

Luber-finer

NEW REVOLUTIONARY MODELS 500-C and 750-C

Fully Covered by issued and pending U.S.A. and Foreign Patents

Save TIME and MONEY with
Luber-finer's FASTER
SIMPLIFIED Pack Replacement

Luber-finer Exclusive Features

- **SINGLE BOLT CLOSURE**—Ingeniously designed Clamping Ring utilizes Single Bolt Closure for quick, easy Pack Replacement.
- **POSITIVE SEALING GASKET**—Long lasting "O" ring type gasket assures leak-proof lid closure at all operating pressures.
- **NEW TYPE INTERNAL DESIGN AND CONSTRUCTION**—Provides multiple seal to eliminate the possibility of oil by-passing the Luber-finer pack.
- **DUAL SAFETY VALVES**—Prevents oil drain-back, assuring exact crank case oil level reading at all times, stops oil from circulating through unit if lines are reversed or if Luber-finer is otherwise improperly installed.
- **ONE-PIECE EXTRUDED STEEL HOUSING**—Plus rugged mounting brackets insures durability and long, trouble-free operation.
- **TIME-TESTED PATENTED FILTERING PROCESS**—Only in genuine LUBER-FINER PACKS—the exclusive patented filtering process proved by millions of satisfied users the world over.

FOR COMPLETE INFORMATION WRITE DEPT. 1

LUBER-FINER, INC., 2514 So. Grand Avenue, Los Angeles 7



Fleet Notes

Continued from Page 182

safety rags, other state and federal regulations, adherence to operating schedules, labor matters including contract interpretation, settlement of local differences and grievance hearings.

Allied Van Lines, Inc., Broadview, Ill., has announced all-van door-to-door service between any point in the United States and Alaska. Vans will be loaded in barges in Seattle, Wash., and delivered at destination by Alaska Freight Lines.

Pilot Freight Carriers, Inc., Winston-Salem, N. C., has authorization from the state's Utilities Commission to handle its own accident and liability insurance.

Branch Motor Express Co., New York City, for the fourth consecutive year, has been awarded Liberty Mutual Insurance Company's plaque for outstanding achievement in cargo loss prevention.

Husman & Roper Freight Lines, Inc., St. Louis, Mo., has announced award of its scholarships to two essay contest winners. Two additional scholarships will be given.

Yale Transport Corp., New York City, has opened its new terminal in that city. Outstanding feature is a 75-ft long, fully-lighted truck model mounted atop the new facility.

North Shore Motor Express Co., Inc., Chicago, has signed a contract with Terminal Construction Corp. for a \$200,000 terminal in Summit, Ill.

Pilot Freight Carriers, Inc., Winston-Salem, N. C., has opened its 24-door, \$125,000 terminal in Buffalo, N. Y.

Glendenning Motorways, Inc., St. Paul, Minn., has the state's OK to purchase Olson Freight Service, Pine River, Minn., and Sergeant Freight Service, Aitkin, Minn.

East Texas Motor Freight Lines, Dallas, Texas, has opened its new Memphis, Tenn., terminal. The 37-door dock has a 15-ft overhead to protect cargo from rain during loading.

Motor Freight Express, Inc., York, Pa., and Wilson Freight Forwarding Co., Cincinnati, Ohio, have inaugurated through service and single-line rates between points in their territories. Transfer point will be Pittsburgh, Pa.

At 20%

"P"

IS M



1. Your ve
ing with
freeze! No
wasted on
cles damag
boil-away a



5. Specia
(exclusive
anti-freeze)
inhibitor g
tion agains
ging. Sup
serve preve

ORDI

NATIONAL C

COMMERCIAL C

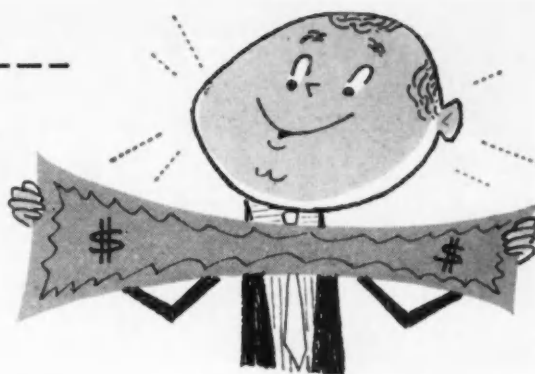
At 20% lower cost this year...

"PRESTONE"

BRAND ANTI-FREEZE

IS MORE THAN EVER YOUR BEST BUY!

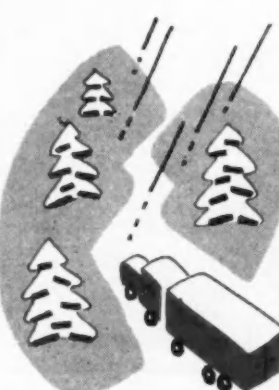
Why take chances with "boil-away" anti-freeze?



1. Your vehicles keep rolling with "Prestone" anti-freeze! No time or money wasted on repairs to vehicles damaged by loss of boil-away anti-freeze.



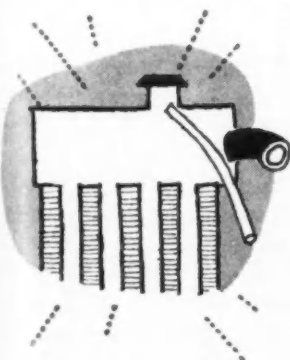
2. You save on maintenance with "Prestone" brand anti-freeze. No need for continual testing — no refilling necessary. One shot lasts all winter.



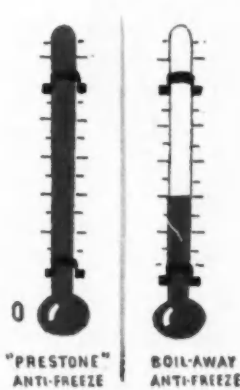
3. No danger from anti-freeze boil-away... even when driving up steep grades with heavy loads, or when vehicle pulls through snow or ice.



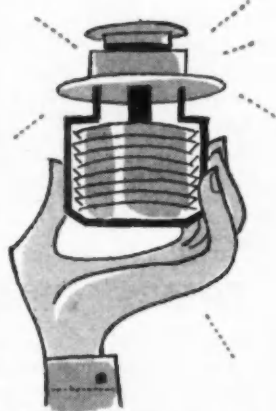
4. Driving from cold to warm climates makes no difference to "Prestone" anti-freeze. Even at high speeds it won't boil away, foam off or overflow.



5. Special oil inhibitor (exclusive with "Prestone" anti-freeze) plus chemical inhibitor give extra protection against rust and clogging. Super-alkaline reserve prevents corrosion.



6. The high boiling point of a "Prestone" anti-freeze solution gives you a greater margin of safety against boil-away and overflow loss.



7. High temperature thermostats may be used. This improves engine efficiency during cold weather, reduces engine wear, extends engine life.



8. Drivers are more comfortable because high temperature thermostats give more efficient heater operation — better heating inside cab.

ORDER "PRESTONE" BRAND ANTI-FREEZE AT THE NEW LOW PRICE!

The terms "Prestone" and "Eveready" are registered trade-marks of Union Carbide and Carbon Corporation
NATIONAL CARBON COMPANY • A Division of Union Carbide and Carbon Corporation • 30 East 42nd Street, New York 17, N.Y.

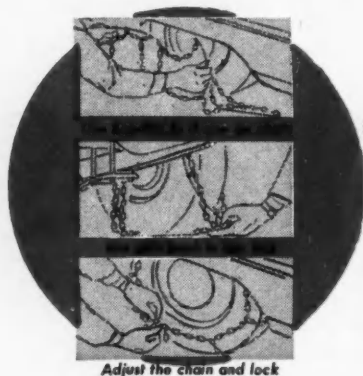
COMMERCIAL CAR JOURNAL, August, 1954

FINEST FOR FLEETS! CAMPBELL CHAIN

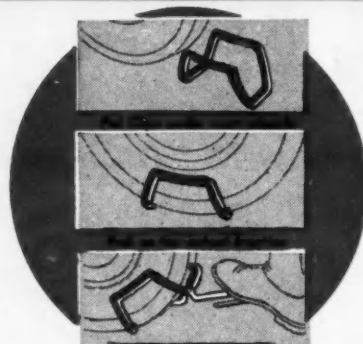
A Complete Line of
Regular and Emergency Traction Equipment

Revolutionary NEW Emergency "TRACTION KLIPS"

Tuck a Klip under each rear wheel . . . roll on . . . roll away! Even spinning wheels will pick up Klips—get you out of ruts, up slippery hills, away from icy gutters. Klip remover tool included for easy release. The greatest emergency traction device ever! For all passenger cars, taxis, light trucks.



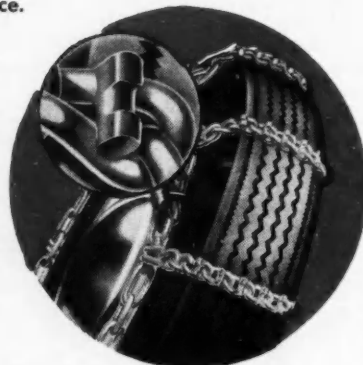
Adjust the chain and lock



Handy lever lifts off Klips

Campbell's NEW Minute-A-Wheel "KWIK-ON" TIRE CHAINS

Complete chains for continuous use. Just one minute per wheel—and you're ready for snow, ice or mud! Just slip chain over wheel with handy handles—push rod in back of tire—adjust and lock. Special plastic sleeve protectors come with each set. No jacking or moving vehicle . . . no dirty work. Perfect to speed up—and ease up—your fleet service.



A Campbell Exclusive—Lug-Reinforced PASSENGER CAR CHAINS

Patented Lug-Reinforced construction that digs in for greater traction . . . greater protection against skids and side slips. Easy-to-use Chain Applier included with every pair. The finest tire chains money can buy! Store neatly in sturdy box. Get a set for every car in your fleet!



Three Grades of Campbell TRUCK CHAINS

Lug-Reinforced for maximum traction and long wear—Highway Service for general use—Mud Service for off-the-road use. Color-coded bags save handling time—make identification easy.

Ask your jobber to recommend just the right Campbell Chain for the job at hand. If you prefer, write direct.

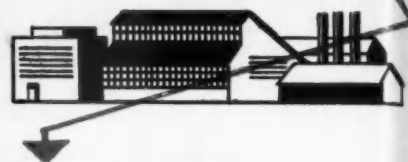
CAMPBELL CHAIN Company

MAIN OFFICE, YORK, PA.

West Burlington, Iowa; Portland, Oregon; Sacramento, Calif.

Chain for every need . . . industrial . . . marine . . . farm . . . automotive

FACTORY FLASHES



Mack Trucks, Inc., New York City, has been awarded a contract for 121 trucks costing over \$2 million by the U. S. Army Corp. of Engineers for use by the U. S. Navy Bureau of Yards and Docks. Features include 11 cu yd capacity dump bodies, 30,000 lb loads and 200 hp diesel engines.

White Motor Co., Cleveland, Ohio, is establishing a direct factory branch in Akron, Ohio. Robert G. Oakley will be manager. Sales and service of White trucks in Oklahoma City, Okla., will be handled by Southwestern White Trucks, Inc.

Brown Trailers, Inc., has announced removal of its executive offices from Spokane, Wash., to Toledo, Ohio. Production will continue at the Spokane factory. Brown has bought outright the Toledo plant that it has leased for the past five years. Production at the company's new Reading, Pa., factory is approaching full scale.

International Harvester Co., Chicago, has announced that all International trucks with conventional cab design, except diesel engine models in the light, medium and heavy-duty field are available with right-hand drive.

Wagner Electric Corp., St. Louis, Mo., has moved its Atlanta, Ga., offices and warehouse to 1536 Boulevard Ave., N.E., in that city.

Clark Equipment Co., Buchanan, Mich., has formed a new subsidiary, Clark Leasing Corp., to handle leasing of its materials handling equipment on a national basis.

Scandinavia Belting Co., Newark, N. J., is celebrating its 50th anniversary this year.

Caterpillar Tractor Co., Peoria, Ill., has put into operation its new 770,000-sq ft plant in York, Pa.

Hercules Motors Corp., Canton, Ohio, has opened a new Los Angeles, Cal., branch at 2336 South Garfield Ave. in that city.

The Heil Co., Milwaukee, Wis., has appointed Power Brake and Equip-

(TURN TO PAGE 190, PLEASE)

RY
S
H

ork City,
for 121
n by the
eers for
ureau of
include
es, 30,000
engines.

nd, Ohio,
y branch
Oakley
ervice of
ty, Okla.,
hwestern

nnounced
ces from
hio. Pro-
Spokane
outright
eased for
on at the
, factory

Co., Chi-
Internat-
ional cab
e models
heavy-duty
ight-hand

St. Louis,
Ga., offices
Boulevard

Buchanan,
subsidiary,
le leasing
equipment

Newark,
a anniver-

eorla, Ill.,
w 770,000-

Canton,
s Angeles,
n Garfield

Wis., has
d Equip-
EASE)

August, 1954



Let everyone know where you're gonna go

SIGNAL-STAT Directional Signals are built to flash a clear, powerful beamed pattern of warning light, so there's no mistaking a driver's intent to turn or change lanes. That's why safety conscious truck operators like The Baltimore Transfer Co., and Motor Freight Express, Inc., insist on SIGNAL-STATS for all their vehicles. It's why more truckers, coast to coast, choose SIGNAL-STATS than all other makes of Directional Signals combined.

SIGNAL-STAT Class A—Type 1 Directional Signal Lamps are available in 2 complete lines: King Size (SIGSTAT) and Regular Size (ACRYSTAT). With SIGNAL-STAT guaranteed "Burnout-Proof" Switches, they are an unbeatable combination for safety. Be sure you install genuine SIGNAL-STAT equipment.

WARD L. BENNETT, Director of Maintenance for The Baltimore Transfer Co., and Motor Freight Express, Inc., says "Our companies sanction no compromise when safety is involved. We have a fine record to protect, and we pay careful attention to every detail involved in safety. We have found SIGNAL-STAT Directional Signals to be the most easily visible of all types tested, and have therefore installed them on all our vehicles."



Legal and approved in all 48 States and the District of Columbia



SIGNAL-STAT CORPORATION, Signal-Stat Building, 523-539 Kent Ave., Brooklyn 11, N. Y.

COMMERCIAL CAR JOURNAL, August, 1954

Factory Flashes

Continued from Page 188

ment Co., St. Paul, Minn., as a distributor of the company's line of petroleum transportation tanks. Hoffman Auto Body Service, Inc., Columbus, Ohio, will handle the company's line of truck bodies and hoists.

Clark Equipment Co., Buchanan, Mich., announces that all gas-powered industrial trucks made by the

company will have bonded rather than riveted brake shoe and lining assemblies.

Allegheny-Ludlum Steel Corp., Pittsburgh, Pa., has completed its expansion and improvement program at the company's Carmet Division plant in Ferndale, Mich., a suburb of Detroit.

Bonney Forge & Tool Works, Allentown, Pa., has appointed The Hirkline Co., Cleveland, Ohio, as its sales representative to automotive jobbers in Ohio, West Va. and western Pa.

Spencer Mfg. Co. of Ohio, Spencer, Ohio, formerly The Spencer Mfg. Co., has been purchased by a group of Chicago industrialists headed by J. A. Roesch, president of The Spencer Mfg. Co. of Ill.

Cummins Service and Sales, Los Angeles, Cal., announces that E-W Equipment Co. has been appointed Cummins engine dealer for San Diego, Cal.

Wagner Electric Corp., St. Louis, Mo., has a new branch office and warehouse in El Segundo, Cal., for its southern Cal., Ariz. and Nev. operations.

Galion Allsteel Body Co., Galion, Ohio, has appointed Schweigers, Inc., Watertown, S. D., as state distributor of its line of hydraulic hoists and dump bodies.

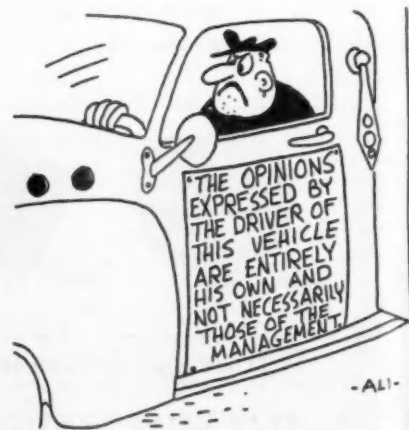
R. D. Fageol Co., Detroit, has purchased Trans-Main Corp., Kent, Ohio, and Fageol Heat Machine Co., Detroit.

Truckmen's Insurance Co., has been formed in New York City. It will specialize in providing casualty insurance for the garment trucking industry.

Krause Plow Corp., Hutchinson, Kan., has completed arrangements with Frazier Tandem Systems, Inc., Springfield, Mo., for manufacturing rights for the Frazier Steel Spring Tandem and the Frazier Air Ride Tandem.

Borg-Warner Corp., Chicago, has estimated a 60 per cent increase in expenditures for plant and equipment this year. Net income in 1953 was \$23.978 million compared with \$22.914 million in 1952.

The Budd Co., Philadelphia, reports 1953 sales of \$336 million compared with \$297 million in 1952. Earnings reached \$10.8 million in 1953, an increase of 17.8 per cent over 1952.



This message is published by Neapco Products Inc., Pottstown, Pa., makers of Universal Joints, Power Take-Off Joints, and Chassis Parts.

NEAPCO

Reo Off 9-in. D

E SPECIAL Livery truck frame chassis and F-22 truck by Reo Motor

Using a 9 by the new chassis of the cab, a there to the pickup over the

Normal load frame at the wheelbase chassis is 27 7/16 in. the loaded h Height of the the chassis at 2 1/4 in. more th frame height the end of the lower than th tional unit.

If a van-type drop frame height from t 20 tires, is o of the body, SAE standar

Available bases, Reo is for factory-in designed and frame chassis

Al 6x

T HIS new cently ad No. F-50 ser to the rear sembly, whil tandem is " the conventi cording to R

Weight S axle is a tw that the us sion is elim substantial dition, with further wei the tandem

Performa nation of th and one car (TURN T

COMMERCIAL

Reo Offers Optional 9-in. Drop Frame

ESPECIALLY designed for city delivery trucks, a new optional drop frame chassis for Model Nos. F-20 and F-22 trucks has been announced by Reo Motors, Inc., Lansing, Mich.

Using a 9 by 3 by 1/4-in. straight rail, the new chassis drops 9 in. at the rear of the cab, and the only rise from there to the end of the frame is a pickup over the rear axle of 4 1/4 in.

Normal loaded height of the drop frame at the rear axle of a 150-in. wheelbase chassis with 8.25 by 20 tires is 27 7/16 in. At the end of the frame the loaded height is 4 1/4 in. less. Height of the frame with no load on the chassis at the rear axle is only 2 1/4 in. more than at normal load. The frame height of a drop frame unit at the end of the chassis is about 10 in. lower than the height of a conventional unit.

If a van-type body designed for the drop frame is mounted, the floor height from the ground, with 9.00 by 20 tires, is only 33 1/4 in. at the end of the body, about 15 in. less than SAE standards.

Available in all standard wheelbases, Reo is working out a program for factory-installed bodies especially designed and produced for the drop frame chassis.

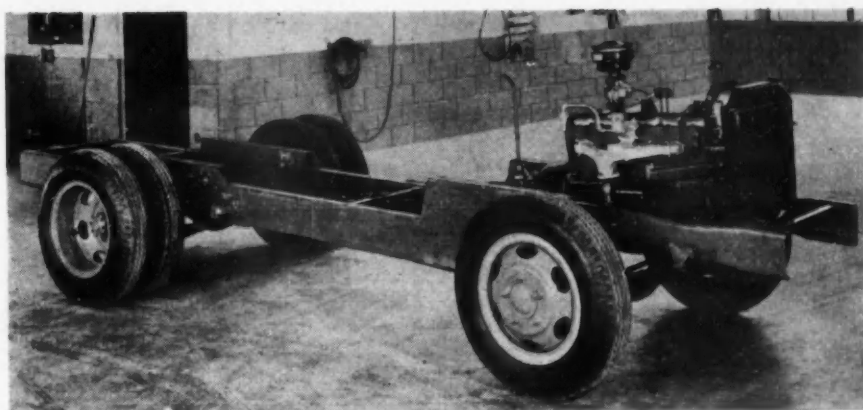
Also Offers 6 x 2 Tandem

THIS new 6 x 2 tandem truck, recently added to the Reo Model No. F-50 series, features power only to the rear axle of the tandem assembly, while the front axle of the tandem is "dead." Advantages over the conventional 6 x 4 tandem, according to Reo are:

Weight Saving—The rear drive axle is a two-speed unit which means that the usual auxiliary transmission is eliminated, providing for a substantial saving in weight. In addition, with only one power axle, a further weight saving is realized in the tandem assembly.

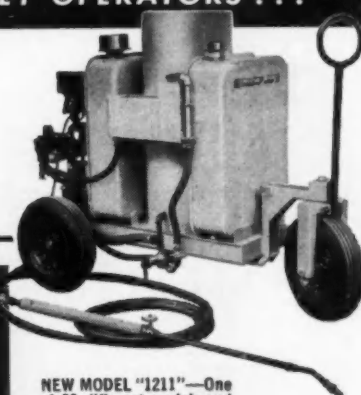
Performance—Through the elimination of the auxiliary transmission and one carrier, the horsepower loss

(TURN TO NEXT PAGE, PLEASE)



FIRST CHOICE OF FLEET OPERATORS ...

**for fast
economical
maintenance**



NEW MODEL "1211"—One of 80 different models and types of Jenny for your needs.

New Model "1211"
HYPRESSURE
Jenny
STEAM CLEANER

For fast, economical vehicle maintenance, Model "1211" Hypressure JENNY is the ideal tool for fleet service shops. Equipped with automatic electric spark ignition, this big, 120 gals.-per-hour-capacity unit, is ready to clean in less than 90 seconds from a cold start. There is no lost "warm-up" time, no delay making adjustments every time you use it. Just flip a switch, and JENNY is ready to go.

Model "1211" will save up to 40% of valuable man-hours in your shop by removing speed-retarding muck and grease from equipment before repairs... keep motors, chassis, springs and undergear free of road dirt... flush grime and grit from lubrication fittings for fast, efficient, careful servicing. And JENNY will keep your shop equipment, tools, floors, lifts, pits, walls, etc. clean for more efficient operation, 10 times faster and cheaper, than you can do it by hand. On its big 16 inch rubber-tired wheels JENNY will roll anywhere you want to use it.

MAIL THE COUPON TODAY for complete information.

Send me FREE BOOKLET "1001 Ways to Extra Profits with Hypressure Jenny"

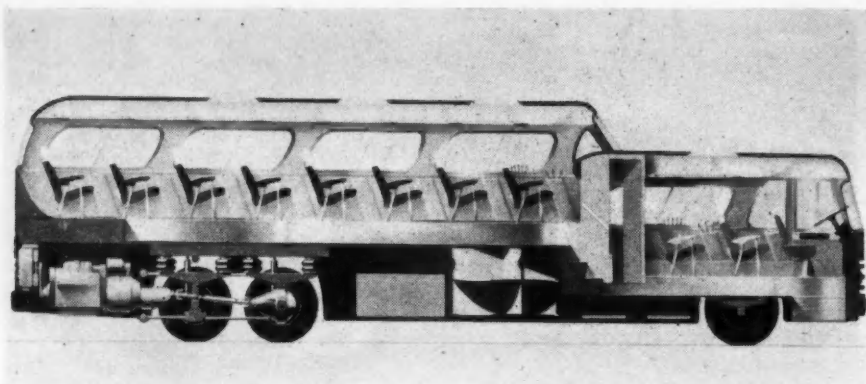
NAME _____ TITLE _____
COMPANY _____
ADDRESS _____
CITY _____ STATE _____

HYPRESSURE JENNY DIVISION
HOMESTEAD VALVE MANUFACTURING COMPANY

"Serving Since 1892"

P.O. Box 90

Coraopolis, Pa.

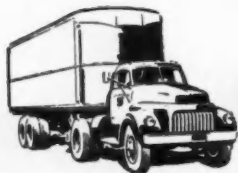
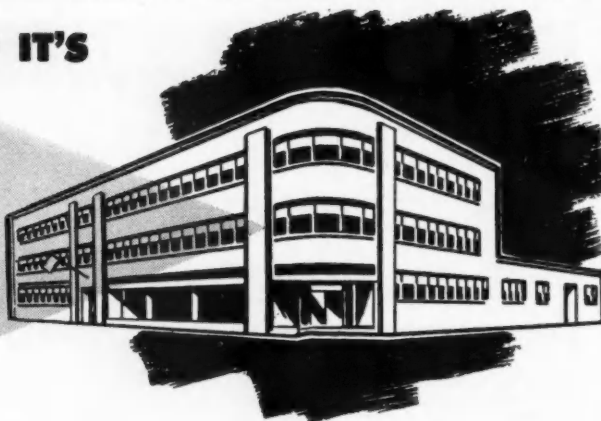


Greyhound's Scenicruiser

First deliveries were made last month by GMC Truck & Coach to Greyhound Corp. of these 15-ton "Scenicruiser" buses. There are 500 on order at \$24½ million, about \$49,000 each. Built on two levels, the buses have 10 seats forward and 33 upstairs. The built-in air conditioning makes a complete change of air every 40 sec. It also has a two-way telephone and toilet and washroom. It measures 96 in. wide, 11 ft high and 40 ft long as compared to the present 35 ft length for most intercity buses. Two 4-cyl 150-hp GM diesel engines, mounted side-by-side transmit 300 hp through fluid couplings to a multiple speed transmission. Engines can be removed together as a unit. Air suspension is used throughout with 2 bellows for each wheel. Drive is through the forward axle of the dual-tire rear tandem.

IN CHICAGO IT'S

**ILLINOIS
AUTO
ELECTRIC
CO.**



AUTHORIZED FACTORY WAREHOUSE SERVICE

*for Special Truck
and Trailer Equipment*

- Elston Sanders
- Bendix-Westinghouse and Bendix B-K Vacuum Brakes
- A. S. F. Fifth Wheels
- Elston L. P. G. Cargo Heaters
- Hunter Cab and Cargo Heaters
- Kim Hotstart Engine Pre-heaters
- Mondak Voltage Selector Switch
- Cargo-Guard L. P. Gas Heaters
- American Bosch & Bendix-Scintilla Diesel Injection Service
- Kysor Automatic Radiator Shutters
- Sun Tachometers & Sangamo Tachographs
- Ensign Carburetion Equipment for L.P.G. Systems
- Prior and Michigan Fleet Safety Tanks
- Detroit Automotive Load-Booster 3rd Axle Assemblies and Thornton 4-Wheel Drive Axles



POLICE & PUBLIC SERVICE SPECIAL EQUIPMENT

Leece Neville Alternators
Lorraine Spotlights

American Bosch Generators
Federal Beacon-Ray Lamps



I.C.C. REQUIRED SAFETY & LIGHTING ACCESSORIES

Complete stock on hand of nationally-advertised

Fuses — Flares — Flags — Turn Signals — Marker Lights — Fire Extinguishers

COMPLETE TRUCK REFRIGERATION EQUIPMENT

- Hunter Dry Ice Coolers
- Kold-Hold Truck Plates
- Allen Coolers
- Arctic Traveler
- Kold-Trux Truck Refrigeration Units
- LeHigh "Blu-Cold" Truck Refrigeration Units



Call us regarding your special equipment needs.

ILLINOIS AUTO ELECTRIC CO.

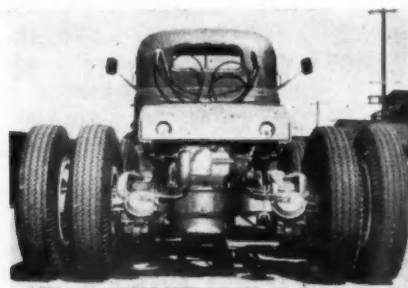
2011-37 S. Indiana Ave. • Chicago 16, Ill.
Phone CALumet 5-4444

Reo 6x2 Tandem

Continued from Page 195

of the 6 x 2 from flywheel to tires is reduced. This results in better performance with the same load, longer engine life, and increased fuel mileage.

Length—The 6 x 2 is available in wheelbases as short as 140 in. which



means that when overall length is a factor, a longer trailer can be used. The shorter wheelbase also results in chassis weight savings.

Loading—Use of the tandem axle permits more rapid loading of the trailer with less concern as to "balancing" the payload in order to observe legal axle road limits.

Timken SQT-335

The new Reo 6 x 2 features a Timken SQT-335 tandem axle. The front axle of the tandem is a tubular trailer type, and the rear power axle is similar to the QT-300 except that the carrier is top-mounted so the propeller shaft clears the dead axle.

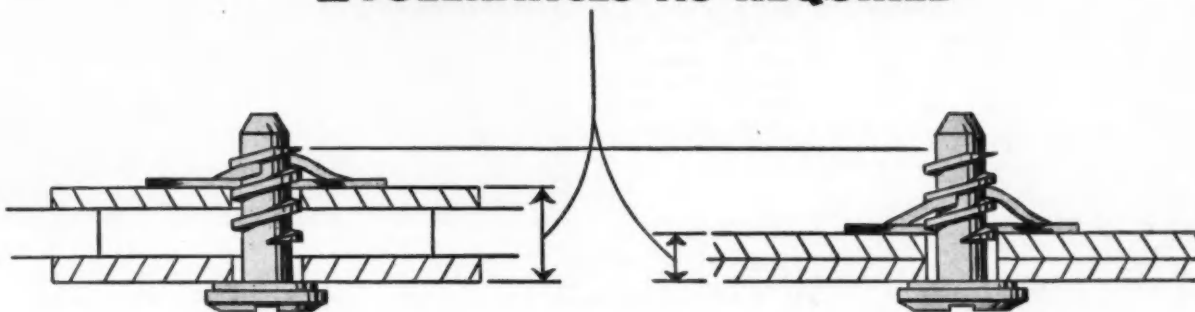
Bogie spacing and spring length division are unequal on the 6 x 2, splitting the weight 55 per cent on the drive axle and 45 per cent on the dead one. This permits adequate traction for the drive wheels.

Why change cowl fastener size every time tolerances vary .010" ?

SOUTHCO

quick release fasteners provide:

±TOLERANCES AS REQUIRED

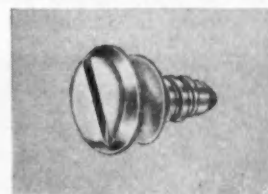
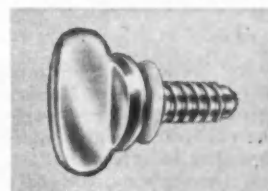
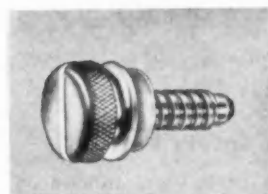


Industrial tolerances, provided only by Southco Quick-Release Fasteners, are designed to accommodate variations in thickness normally encountered in metal working. No longer is it necessary to call out a different size precision type fastener because of a few thousandths variation. You eliminate a serious stock problem and reduce assembly time when you specify SOUTHCO.

You can easily choose the right Southco Quick-Release Fastener from a wide variety of stock sizes which include two diameters and three head styles.

The Southco Handbook makes it easy to pick the proper fastener. Write for your copy today. Southco Division, South Chester Corporation, 228 Industrial Highway, Lester, Pa.

© 1954



SOUTHCO

FASTENERS

**PAWL • SCREW AND SPRING •
DRIVE RIVETS • ANCHOR NUTS •
ENGINEERED SPECIALTIES**

OFFICES IN PRINCIPAL CITIES

WHEREVER TWO OR MORE PARTS ARE FASTENED TOGETHER; STANDARD AND SPECIAL DESIGNS FOR IMPROVED PERFORMANCE AND LOWER PRODUCTION COSTS



SOUTHCO DIVISION
SOUTH CHESTER CORPORATION
228 Industrial Highway, Lester, Pa.

Please send me, without cost, the 24 page
SOUTHCO FASTENER HANDBOOK ☐

Please have representative call ☐

NAME

POSITION

COMPANY

ADDRESS

CITY ZONE STATE

August News Roundup

Claim Prevention Awards

Johnson Motor Lines, Charlotte, N. C., Branch Motor Express, New York City, and Carolina Freight Carriers Corp., Cherryville, N. C., won first, second and third place respectively in the 1953 national claim prevention contest, sponsored annually by ATA's National Freight Claim Council.

Seven firms were awarded certificates as special recognition for outstanding prevention programs: Akers Motor Lines, Gastonia, N. C.; Coffey's Transfer, Alma, Neb.; Des Moines Transportation Co., Inc., Des Moines, Iowa; Garrett Freightlines, Inc., Pocatello, Ida.; Needham's Motor Service, Inc., Philadelphia, Pa., and Super Service Motor Freight Co., Nashville, Tenn.

Buffalo Safety Patrol

Plans have been announced to be-

gin a seven-day-a-week, 6 a.m. to 6 p.m., truck safety patrol in the Buffalo, N. Y., area. The Trucking Federation of the Niagara Frontier is sponsor of the plan scheduled to begin operation this month with from three to six patrol cars.

Reo's search for its "baby" (May issue, page 100) was successful. The 238-lb model of the 1906 Reo car was found in Altoona, Pa. It is now being readied for exhibit



ICC Gives Green Light

ICC's action early last month permitting railroads to go ahead with plans to haul their own or leased trailers at motor carrier rates brings the number of railroads now operating "piggy-back" service to 16. Three more are planning to begin in the

near future. Of the 16, 12 are hauling their own or leased trailers, three are providing the service for common carrier truck lines, and one is hauling both their own and highway common carrier trailers. Of the three yet to begin, only one—the New York Central—expects to provide the service for common carrier truck lines.

Suspension Hearings

ICC hearing, held July 27, on the original tariff suspension action, produced little more than had already been presented at the June 18 hearing before the Commission that sought answer to the "12 Questions" on the regulatory aspects of trailer-on-flatcar operation (CCJ, May issue, page 174).

While at press time, there was no indication of what the ICC findings might be—or no indication when they would be announced—most of the argument presented by American Trucking Assns. centered around the questions of (1) does a railroad have to have motor carrier authority to "piggy-back" and (2) does the railroad have to have motor carrier authority to deliver "piggy-backed" trailers in the rail terminal area?

ATA's Position

ATA's position and that of ATA's Regular Route Common Carrier Conference is that a railroad cannot offer trailer-on-flatcar service using its (TURN TO PAGE 201, PLEASE)





July • August

VACATION SERVICE SPECIALS

There's a T/M Branch Near You—

- ALABAMA**
BIRMINGHAM • 2721 Fifth Ave. S.
- ARKANSAS**
LITTLE ROCK • Club Rd. at Hot Springs Hwy.
- CALIFORNIA**
LOS ANGELES • 1754 East 46th Street
OAKLAND • 640 Hegenberger Rd.
SAN FRANCISCO • 2030 Third Street
- COLORADO**
DENVER • 5200 Colorado Blvd.
- CONNECTICUT**
NEW HAVEN • Boston Post Rd.
- FLORIDA**
JACKSONVILLE • 1030 Wilcox Street
MIAMI • 2133 N.W. - 11th Ave.
TAMPA • 211 S. Tampa Street
- GEORGIA**
ATLANTA • 780 Lake Avenue, N.E.
- ILLINOIS**
CHICAGO • 3301 S. Justine Street
EAST PEORIA • 1235 W. Washington
ROCKFORD • 2230 Seventh Avenue at Miller
- INDIANA**
INDIANAPOLIS • 1531 Stadium Drive
- KENTUCKY**
LOUISVILLE • 424 River Road
- LOUISIANA**
NEW ORLEANS • Deckbar Ave. & I.C.R.R.
- MASSACHUSETTS**
BOSTON • 282 Mystic Avenue, Medford
- MARYLAND**
BALTIMORE • 1403 Rome Road
- MICHIGAN**
DETROIT • 4111 Central Avenue
GRAND RAPIDS • 1st & Turner Streets, N.W.
SAGINAW • 314 W. Genesee Ave.
- MINNESOTA**
ST. PAUL • 2654 University Avenue
- MISSOURI**
KANSAS CITY • 1609-15 Locust Street
ST. LOUIS • 1409 Howard Street
SPRINGFIELD • E. Highway 66 at Biesiegel Rd.
- MISSISSIPPI**
JACKSON • Fannin Road
- NEBRASKA**
OMAHA • 1112 Capitol Avenue
- NEW JERSEY**
NEWARK • 58-62 Montgomery Street
- NEW MEXICO**
ALBUQUERQUE • 824 Arno Street, N.E.
- NEW YORK**
ALBANY • Stop 17 1/2, Albany-Schenectady Rd.
BUFFALO • 650-58 Exchange Street
LONG ISLAND • 42-20 Crescent Road
SYRACUSE • Thompson Rd. & Burnet Ave.
- NORTH CAROLINA**
CHARLOTTE • 2019 North Tryon Street
GREENSBORO • Highpoint Highway
- OHIO**
AKRON • 792 S. Main Street
CINCINNATI • 1049 Dalton Street
CLEVELAND • 1808 E. 22nd Street
COLUMBUS • 175 W. Spruce
DAYTON • 1749 Stanley
TOLEDO • 624 Brown Avenue
YOUNGSTOWN • 1908-10 Belmont Street
- OKLAHOMA**
OKLAHOMA CITY • 1012 W. California
TULSA • 2111 S. Quannah
- OREGON**
PORTLAND • 2166 N. W. Wilson
- PENNSYLVANIA**
ERIE • 1221 Walnut Street
LANCASTER • 1201 Marshall Avenue
PHILADELPHIA • 2852 Memphis Street
PITTSBURGH • 3310 Penn Avenue
- TENNESSEE**
MEMPHIS • 1727 Florida
NASHVILLE • 219 Lafayette
- TEXAS**
DALLAS • Plantation Dr. & Harry Hines Blvd.
HOUSTON • 949 Lockwood Dr.
SAN ANTONIO • 214 S. W. Military Dr.
- UTAH**
SALT LAKE CITY • 365 W. 1370 South
- VIRGINIA**
NORFOLK • 1615 Broadcreek Rd.
RICHMOND • Brook Road at Lombardy
- WASHINGTON**
SEATTLE • 153 Michigan
SPOKANE • E. Front Street
- WEST VIRGINIA**
HUNTINGTON • 2221 Fifth Avenue
- WISCONSIN**
GREEN BAY • 1212 Velp Avenue
MADISON • Hwy. 30 near Junct. Hwy. 51
MILWAUKEE • 415 S. Third Street

TRAILMOBILE INC.

The Trend
is to

TRAILMOBILE

Subsidiary of Pullman Inc.

August Roundup

Continued from Page 198

own or leased trailers unless it holds motor carrier operating authority, including terminal area delivery.

As might be expected, the railroads claim that no highway carrier authority is needed for either operation. This position is supported by the statements of ATA's Local Cartage National Conference, the Private Truck Council of America, the National Industrial Traffic League and the Freight Forwarders Institute.

Argument presented by both the Private Truck Council of America and ATA's Private Truck Council both restate their position that "piggy-back" service should be open to both common and private carrier truck operators on an equal basis.

Governors' Conference

Meeting in Bolton Landing, N. Y., middle of last month, the governors of the various states heard a proposal from President Eisenhower that \$50 billion be spent on the nation's highways during the next 10 years in addition to present expenditures. Although at first some opposition to the idea was heard (page 5, this issue), a resolution to give favorable consideration to the road building suggestion was passed.

Comment from most highway user groups indicated that the plan as presented was not definite enough without the further action proposed in the governors' resolution. Financing of the program, as suggested in the President's notes, would be through self-liquidating projects, through tolls or increases in gas taxes. Where such measures would not be possible, federal aid would be considered where the national interest demands it.

The \$50 billion proposal was promptly endorsed by the Independent Advisory Committee to the Trucking Industry (ACT).

Reciprocity, Safety

The governors also passed a resolution setting up a special committee to recommend a solution to the interstate truck reciprocity-retaliation problem before the various state legislatures meet in 1955 (page 17, this issue).

Noting the success of last year's "Slow Down and Live" campaign carried on by the Northeastern States Safety Coordinators during the vaca-

tion period and its expansion this summer in cooperation with the Southern State Safety Coordinators, the governors also passed a resolution recommending that such a campaign be conducted on a nation-wide basis especially between Memorial Day and Labor Day, 1955.

Railroad Truck Assn.

Western railroads and their motor carrier affiliates have formed the Western Railroad Truck Lines Assn. Main purpose is to study handling of merchandise traffic moving in joint rail-truck operations.

Mobile Radio Service

The Federal Communications Commission has proposed to transfer private truck radio permits from the present Land Transportation Services classification to a special group under the Industrial Services classification. Present Highway Truck, Intercity Bus and Urban Transit subsections of the Land Transportation classification would be regrouped under one subsection to be called Motor Carrier Radio Service. Licenses in this group would be open only to common and contract carriers of passengers or freight.

As of April 1 this year there were 6270 licenses issued under the Land Transportation Services classification including 293—Auto Emergency, 399—Highway Truck, 8—Intercity Bus, 138—Railroad, 5357—Taxicab and Urban Transit, 75.

West Coast SAE Meeting

The National West Coast Meeting of the Society of Automotive Engineers will be held at the Hotel Statler, Los Angeles, August 16-18. Highlights of the program include a review of problems involved with conventional axles by A. S. Page, of Page & Page Co. Theodore Dec of the Bureau of Public Roads will present a brief description of the purpose of the WASHO Road tests and test facilities, and the history of test vehicle maintenance.

Air Suspensions

Truck makers report demand for air suspensions is on the increase. Trend toward higher tire pressures is spurring the requests. There are some reports of earlier than normal trouble with suspension parts with the higher tire pressures. Biggest problem with air suspension is original cost but some engineers think it (TURN TO NEXT PAGE, PLEASE)

August Roundup

Continued from Page 201

could be brought into line if widespread use comes, bringing unit cost down.

Cars by Truck Up

Despite cuts in railroad freight charges, the number of automobiles being shipped by trucks is on the increase. At present about 75 per cent

1954 Domestic Truck Factory Sales by G.V.W.*

	5,001 lb. and less	5,001-10,000	10,001-14,000	14,001-16,000	16,001-19,500	19,501-26,000	Over 26,000	Total
January	41,010	15,131	3,323	14,126	2,880	4,128	2,965	83,963
February	34,000	13,585	2,817	11,805	2,771	4,731	2,759	72,468
March	39,232	16,433	3,343	14,774	3,257	4,807	3,308	85,164
April	35,845	15,236	3,288	14,390	2,960	4,723	2,997	79,459
May	33,863	14,298	2,806	12,845	2,874	4,083	2,941	73,712
5 Mos. 1954	183,950	74,683	15,579	67,940	14,742	22,472	14,970	394,336
5 Mos. 1953	235,138	96,279	20,151	71,532	19,798	40,640	19,816	503,354

*—Automobile Manufacturers Association.

of the cars being produced are shipped by truck. The trucking industry's percentage of this business two years ago was around 69 per cent.

Downhill Braking

Problem of downhill braking, stumbling block in developing torque converter automatic drive for trucks, is under attack by engineers. Considerable work is being done on restricting output of the converter on downgrades to prevent over-run.

Power Steering

Power steering demand on over the road trucks has dwarfed GMC's projections. The company in four months sold more power assists than it had forecast for the entire year. One large operator says it helps attract good drivers.

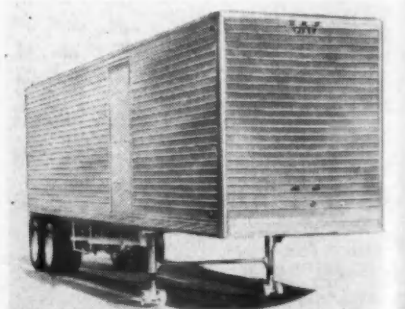
More Bus Cargo

Outsize luggage compartments found on new buses are not designed primarily for more passenger baggage. Actually, trend is for buses to carry more freight and mail. Principal advantage is fast service between fixed points for urgent shipments.

Truck Wiring

ATA Common Carriers Conference has asked truck makers to study (TURN TO PAGE 206, PLEASE)

Pike's Aluminum Trailer



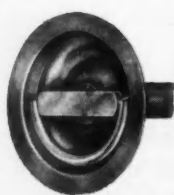
New aluminum trailers announced by Pike Trailer Co., Los Angeles, Cal., incorporate a new corrugation pattern to add strength to side sections and resist wrinkling of panels, as well as double locking rear doors, flush type hardware and electrically welded steel rear door openings. Extruded aluminum section gives strength at minimum weight.

COMMERCIAL CAR JOURNAL, August, 1954

ANNOUNCING A FEW OF THE NEW HANSEN PRODUCTS



1
UNIT



1-UNIT* LOCK and FLUSH HANDLE. Locks door at ONE point—center. Locking Latch, 1" wide, attached to Flush Handle. Latch lifts or lowers by turning operating handle. Lock No. 101-S — 3 3/4" I.D., 4 1/8" O.D., 1/2" deep. 101-L — 4 1/2" I.D., 6" O.D., 1/2" deep. (*Locking point.)

for door
CENTERS

2
UNIT



2-UNIT* LOCK and FLUSH HANDLE. Locks door at TWO points—top and bottom. Lock fitted with two rods, 30" long, with rod guides and springs. Rods cut to length to suit door height. Lock No. 102-S; FLUSH HANDLE, 4 1/8" O.D. 102-L, 6" O.D. (*Locking points.)

TOP and
BOTTOM
of doors

3
UNIT



3-UNIT* LOCK and FLUSH HANDLE. Locks door at THREE points—center, top and bottom. Locks at center by latch; at top and bottom by ends of rods. Lock complete includes two 30" rods and Flush Handle with Latch 1" wide. Lock No. 103-S; FLUSH HANDLE, 4 1/8" O.D. 103-L, 6" O.D. (*Locking points.)

TOP
CENTER
and
BOTTOM

REQUEST
COMPLETE
DETAILS

A. L. HANSEN MFG. CO.

5047 RAVENSWOOD AVE.

CHICAGO 40, ILL.



load
bu

12



YOU CHOOSE
OF EXTRA-PR

Only GMC
profit-making
of c.o.e. haul
of gasoline o
—single or t
models and v

See your C
that's made

GMC Tru

COMMERCIAL C

Total
83,563
72,468
88,114
79,439
73,712
394,376
503,314

stun-
e con-
ks, is
sider-
icting
down-

er the
s pro-
four
s than
year.
ps at-

ments
signed
bag-
ses to
Prin-
be-
ship-

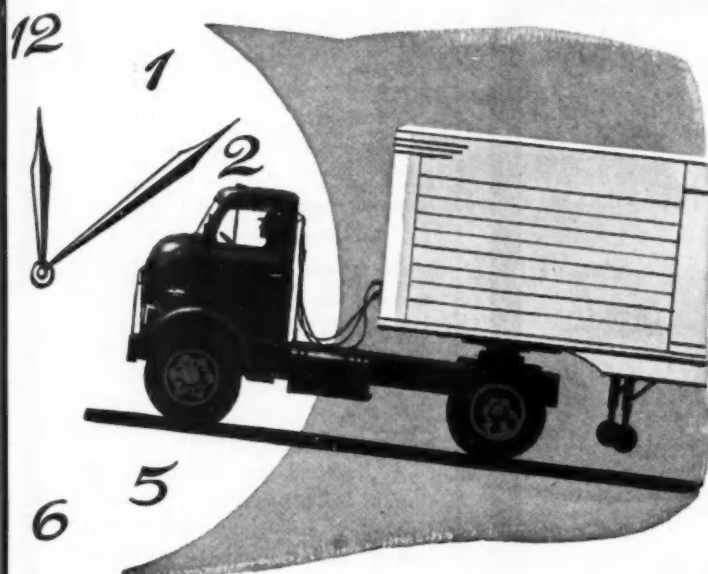
erence
study
()

r

ounced
s, Cal.,
pattern
ns and
well as
h type
ed steel
alum-
mini-

st, 1954

load capacity business grow



YOU GET A BIGGER DAY'S WORK OUT OF EACH TRUCK

These GMC's—with their short turning radius and hustling power—cut your trip time by reducing holdups in traffic and at busy terminals. Up goes the work potential—and *profit potential*—of every truck!

YOU CHOOSE FROM GMC'S FULL LINE OF EXTRA-PROFIT-MAKERS

Only GMC offers all these extra-profit-making advantages in full line of c.o.e. haulers. There's a choice of gasoline or 2-cycle Diesel power—single or tandem axles—various models and wheelbase lengths.



GASOLINE 4,800 GVW TO 70,000 GCW
DIESEL 28,000 GVW TO 100,000 GCW

See your GMC dealer about the GMC c.o.e. that's made to order for *your* business.

GMC Truck & Coach—A General Motors Division

Get a modern truck!

Be careful—drive safely

COMMERCIAL CAR JOURNAL, August, 1954

August Roundup

Continued from Page 202

truck wiring systems for more adequate protection from accidental damage and the elements. Truck makers requested specific requests, so ATA has questionnaired its members for experience and suggestions on placement, conflict with moving parts, or friction.

Trucking TV PR

Trucking companies in the state of Washington, under the leadership of the Washington Motor Transport Assn., have launched a weekly TV program to tell the public about the economic and service advantages of motor transport. "Washington Spotlight," featuring news analyst Marquis Childs, is the 15-minute vehicle, filmed in Washington, D. C., and flown directly to station KTNT for Seattle-Tacoma, KXLY in Spokane, and KIMA at Yakima, all of which

air the program on consecutive Sunday nights.

1954 Truck Trailer Shipments

	May	Five Months
Vans:		
Insulated and refrigerated:		
Steel.....	75	248
Aluminum.....	191	1,029
Furniture:		
Steel.....	104	615
Aluminum.....		
All other closed-top vans:		
Steel.....	404	2,393
Aluminum.....	763	3,418
Open-top:		
Steel.....	60	361
Aluminum.....	61	372
Total—Vans.....	1,658	8,433
Tanks:		
Petroleum.....	429	2,105
All other.....	98	348
Total—Tanks.....	527	2,451
Pole, Pipe and Logging:		
Single Axle.....	63	279
Tandem Axle.....	84	319
Total.....	147	598
Platforms:		
Racks, livestock and stake.....	80	278
Grain bodies.....	66	234
Platforms (flat), all types.....	430	2,011
Total—Platform.....	576	2,521
Low-bed heavy haulers.....	228	1,952
Dump trailers.....	108	390
All other trailers.....	1,089	5,444
Total—Complete Trailers.....	4,333	21,789
Chassis only.....	206	980
Total—Trailers and Chassis.....	4,539	22,769

CRC Tries to Double

A six-week campaign designed to double the present membership of the Customer Relations Council, American Trucking Assns., has been inaugurated under the leadership of E. G. (Red) Lackey, Winston-Salem, N. C., Chairman of the Council. Present membership of the Council is 540 motor carrier companies. Minimum goal of the campaign is a membership of 1000.

Driver Honor

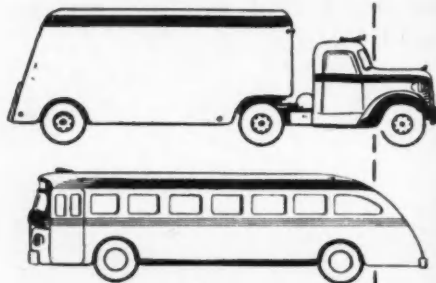
Courteous truck drivers whose chivalrous conduct on the highways may have gone unheralded in the past can now look forward to being proclaimed "Hobbs Knights of the Road." Officially titled the "Hobbs Knight of the Road Awards Program," this new public service is co-sponsored by Hobbs Mfg. Co., Fort Worth, Tex., trailer building concern, and the Texas Safety Assn., in cooperation with the Texas Department of Public Safety.

Anyone who drives a truck will be eligible for an award, which will consist of a certificate and an engraved gift—either an identification bracelet or a cigarette lighter—to be furnished by Hobbs in commemoration of the occasion.

(TURN TO PAGE 208, PLEASE)

COMMERCIAL CAR JOURNAL, August, 1954

**LP-GAS IS THE
Modern Fuel
FOR TRUCKS AND BUSES**



Lower fuel cost... longer engine life... less maintenance... smoother performance.

These are just a few of the advantages that are yours when you switch to LP-Gas, the modern fuel.

Leading truck, bus and engine manufacturers today are offering LP-Gas carburetion as optional equipment because it is universally used and accepted. Truck and bus owners everywhere are converting to its use.

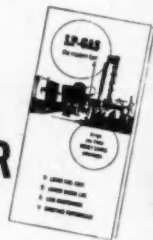


Cable address "ALGAS"

**AMERICAN LIQUID
GAS CORPORATION**

1109 Santa Fe Ave., Los Angeles 21, Calif.

write for
this
FREE
FOLDER
NOW



and find out why

LP-Gas will help you overcome the majority of maintenance problems. It is a clean, dry burning fuel that does not dilute oil or cause wash-down of cylinder walls. No carbon can form in the engine.

The folder shown above will bring you complete information on this modern fuel. Free on request.

igned to
p of the
Ameri-
en inau-
ship of
n-Salem,
Council.
Council
es. Mini-
a mem-

s whose
highways
the past
ing pro-
of the
"Hobbs
ds Pro-
ce is co-
o., Fort
concern,
, in co-
partment

x will be
will con-
engraved
bracelet
be fur-
noration

(SE)

ust, 1954

MIDLAND

OUT IN FRONT AGAIN

WITH GREAT NEW AIR COMPRESSOR!

Newly-Designed Model By
Veteran Manufacturer of Brake
Systems Gives You All These
Advantages

Greatest Efficiency: Patented automatic inlet valves built into cylinder head, permitting greatest efficiency possible in a compressor. No lost piston travel.

Fastest Recovery: Valve mechanism makes for fastest possible recovery of pressure, a tremendously important advantage where frequent and repeated brake applications are necessary — such as in dense city traffic or on steep downgrades.

Minimum Oil Consumption: Lack of high vacuum on suction stroke — another result of Midland's patented automatic inlet valves — reduces oil consumption to minimum, practically eliminates carbon formation.

Governor Mounting: Governor located on side of compressor simplifies installation. (Governor can be remotely installed if need be.)

Cooler Operation: Inlet valves remain open so long as tank is at desired pressure, allowing atmospheric air to circulate through compressor for cooler operation.



Available in Models
12 and 7.4 (Illustrated)

Plus

- Ball Bearing Mounted Crankshaft
- Full High Pressure Lubrication System
- Less Weight
- Operates with Less Horse Power
- Low Cost Maintenance
- Service Features:

Unloading mechanism needs no adjustment. Replaceable automotive precision type connecting rod bearings. Factory rebuilt units available for service.

For complete details, see your nearest Midland dealer—or write factory direct.

THE MIDLAND STEEL PRODUCTS COMPANY
3641 E. Milwaukee Ave. • Detroit 11, Michigan
Export Department: 38 Pearl Street, New York, N. Y.



Those Who Know
Power Brakes Choose
MIDLAND!

GO MIDLAND

AND STOP SAFELY!

Reduces Excessive Exhaust Noise



RIKER

QUIET TONE

Heavy Duty TRUCK & BUS
MUFFLERS

Improve public relations by installing Riker "QT" heavy duty truck and bus mufflers. The unique and exclusive Riker design serves a dual purpose:—

1. Reduces excessive exhaust noise.
2. Gives long, economical muffler life.

Riker Manufacturing designs and builds heavy duty mufflers exclusively. Therefore, these mufflers must meet all requirements in use. Riker "QT" mufflers are proven in use in cities and on highways for over three years.

OPERATORS! MAINTENANCE MEN!

Prepare now for critical months ahead. Write for complete data and prices on mufflers and exhaust system accessories. Or, see your jobber.

RIKER
MANUFACTURING

4809 Detroit Ave., Toledo 12, Ohio

DESIGNERS-MANUFACTURERS

Heavy Duty

MUFFLERS

Exclusively

August Roundup

Continued from Page 206

New PR Film

Fleets will find the new trucking public relations film, "Mr. O'Flynn's Fifty Million Wheels," excellent for showing to their service clubs, civic organizations and other public groups. Produced by the Automobile Manufacturers Assn., it is full of fun and fantasy and at the same time gets across the importance of the trucking industry. Copies may be obtained without charge by addressing Association Films, Inc., at one of the following addresses: (1) Ridgefield, N. J., Broad at Elm; (2) Chicago, 79 East Adam St.; (3) San Francisco, Cal., 351 Turk St.; (4) Dallas, Tex. 1108 Jackson St.

Fleet Supervisors

Newly elected officers of the Society of Fleet Supervisors of Greater Miami (Fla.) are: George G. Hughes, Fuchs Baking Co., president; Earl M. Tracher, Overseas Transportation Co., vice president; and John W. Phillips, Jr., Florida Power & Light Co., secretary-treasurer.

Newly elected officers of the Seattle (Wash.) chapter of the National Assn. of Fleet Supervisors are John J. Hoban, City of Seattle Safety Coordinator, president; Walter E. Conahan, D. K. McDonald Co., vice president; and Clifford C. Coates, secretary-treasurer.

State Regulations

New Jersey—On or after June 30, 1955, all buses, trucks and trucktractors equipped with air brakes must have an audible or visible warning signal to indicate to the driver any loss or lack of air sufficient to prevent the vehicle from being stopped. The normal brake pressure indicator gage is not considered as fulfilling this requirement. Hydraulic brake components must be of a type approved by the Motor Vehicle Director. Use of unapproved fluid, hose, etc., is unlawful and can result in revocation of registration.

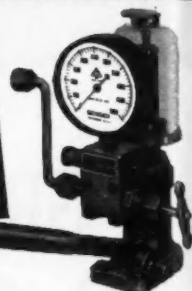
New York—The State Traffic Commission has announced that its regulations have been amended to require obedience to signs saying, "Trucks must use lower gear" and "All vehicles must use lower gear."

Ohio—Fleetmen have another reminder that no refunds are possible under the Ohio Axle-Mile Tax. A

(TURN TO PAGE 212, PLEASE)

Diesel SHOP EQUIPMENT

**NOZZLE
TESTER**
for Bosch
Caterpillar
International
Harvester
Injectors



**INJECTOR
TESTER**
for GM 71
Injectors
Similar Tester
for GM 110
Injectors
Available



**TEST
STAND**
for
Cummins
Injectors



**ENGINE
OVERHAUL
STAND**
for GM 71
Engine

Adapters for Other
Engines Available



**COMPRESSION
TESTERS**
for All Makes and
Types of Diesels



Other Diesel Shop Equipment:

Nozzle and Injector Cleaning Kits •
Lapping Blocks and Sets • GM 71 Engine
Service Tools • GMC Coach and Truck
Tools • Fuel Pump Calibrating Stands

WRITE TODAY for our complete Shop Equipment Manual showing these and more than 300 other testers and tools engineered specifically for Diesel maintenance and repair.

Bacharach Industrial Instrument Co.
7301 Penn Avenue • Pittsburgh 8, Pa.

Says W.

"ZEREX"
rust inhibi
in solution

You can save
time-gobbling
and prevent
pre-mixing
the desired
can drain a
Drums of
be kept on
The special
come to the
freeze and a

COMMERCIAL



"No downtime on these babies—because Du Pont 'ZEREX' Anti-Freeze can be pre-mixed safely"

Says W. W. CUTAIAR, Sr., owner, Mushroom Transportation Co., Kennett Square, Pa.

"ZEREX" has a chemical rust inhibitor that stays in solution.

You can save guesswork, eliminate time-gobbling hydrometer checks, and prevent waste of anti-freeze by pre-mixing "Zerex" with water to the desired protection. Anyone who can drain a system can install it. Drums of pre-mixed "Zerex" can be kept on hand to replace losses. The special chemical inhibitor won't come to the top. You get full anti-freeze and anti-rust protection from

all the solution in the drum.

"ZEREX" has the rust inhibitor with high reserve alkalinity.

Acids form in the cooling system and attack cooling system metals, causing rust and corrosion. The low alkalinity of some anti-freezes makes them ineffective in combating acids. Du Pont "Zerex" has alkalinity to spare—reserve alkalinity that neutralizes harmful acids, keeps cooling systems clean.

Order your "ZEREX" now!

For convenience and economy, get it in 54-gallon drums from your "Zerex"- "Zerex" distributor.

DUPONT
ZEREX
REG. U. S. PAT. OFF.
Anti-Rust ANTI-FREEZE

E. I. DU PONT DE NEMOURS & CO. (INC.)
WILMINGTON, DELAWARE

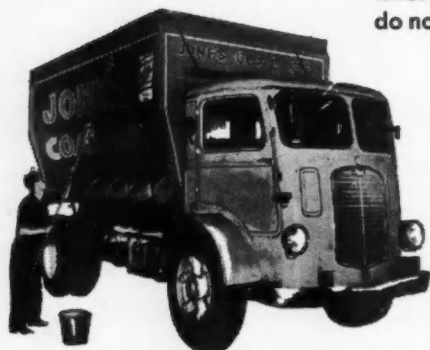
KEEP BODIES CLEAN

without

WASTED LABOR...

PAINT DAMAGE...

WASTED TIME



Whether your trucks get very dirty, accumulate normal road film and bad-weather splashings... or have light-colored finishes which are frequently cleaned and do not accumulate dirt—there is a Magnus

Body Cleaning material exactly suited to the job.

Cut Body Washing Costs with the RIGHT Cleaner

Magnusol is the RIGHT cleaner for very greasy, dirty bodies. Mix with safety solvent or kerosene, and spray or brush the solution on. Then rinse off with water.

Magnus Carfoam (liquid, paste or powder) is the RIGHT

cleaner for bodies that do not get too dirty, or are washed frequently.

Try either of these cleaners for 30 days, without obligation!

Write for details on the Magnus 30-day trial offer.



MAGNUS CHEMICAL CO., INC.

38 South Ave., Garwood, N. J.

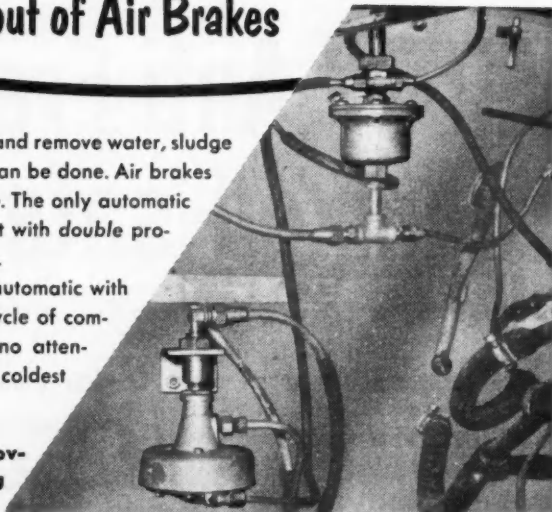
In Canada: Magnus Chemicals, Ltd., Montreal
Service Representatives in Principal Cities

USE WILKERSON TANK DRAIN Keep Water out of Air Brakes

Wilkinson units trap and remove water, sludge and rust before damage can be done. Air brakes stay safe and trouble free. The only automatic units for this purpose built with double protection against loss of air.

Discharge action is automatic with each complete running cycle of compressor motor. Requires no attention, cannot freeze in the coldest weather.

Filter complete with governor and the mounting bracket.



WRITE FOR LITERATURE AND DEMONSTRATION



Wilkerson Automatic Air Products

Tank Drains, Air-Line Separators, Sump Drains—Automatic and Manual Units for High- or Low-Pressure Systems.

WILKERSON CORPORATION

1661 West Girard

Englewood, Colo.

SALES AND SERVICE THROUGHOUT THE U.S.A.

August Roundup

Continued from Page 208

fleet made a duplicate payment of \$234.80, asked the Tax Dept. for a refund. Said the Tax Dept., we can't do it "... since there is no provision in the highway use tax law authorizing the Tax Commissioner to entertain an application for allegedly erroneous or illegal payment, duplicate payment, or overpayment."

Pennsylvania—New inspection period for trucks only begins Aug. 1, 1954, continues until Oct. 31, 1954. Inspection stickers issued during this period will expire April 30, 1955.

New State Laws

Louisiana: H 1050—increasing speed limit for property carriers to 45 mph. H 622—regulating vehicle lighting equipment. H 841—amending laws relative to overweight penalties and permits. H 888—amending laws relative to permits for overweight and oversize vehicles. H-1003—permitting log trucks to operate on public roads without police jury permission. H 1280—permitting vehicles hauling empty barrels and drums a height of 13 ft, 6 in. if GVW does not exceed 40,000 lb. H 128—requiring persons driving for compensation and those driving vehicles over 3500 lb to secure chauffeur licenses. H 266—making suppliers, user-sellers and

(TURN TO PAGE 214, PLEASE)

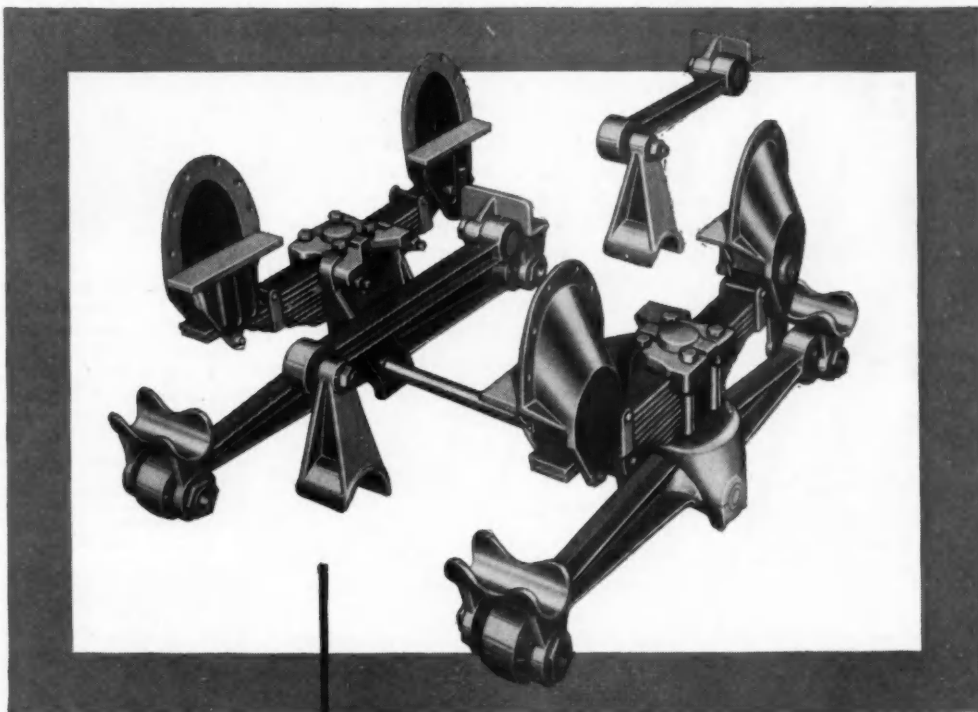
Small Truck Dump Body



New model "low mount" hydraulic hoist for use on standard 1/2, 3/4 and one-ton pickup chassis, is announced by The Perfection Steel Body Co., Galion, Ohio. The twin cylinders of the hoist are low slung between the chassis frame to permit a lift point well ahead of the body hinges to obtain greater leverage and longer, useful trouble-free service. The 450-lb unit has a maximum capacity of 6000 lb and is available with either PTO or electric drive.

COMMERCIAL CAR JOURNAL, August, 1954

The HENDRICKSON series **RT** tandem

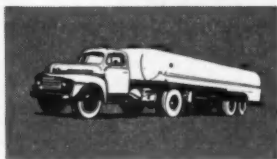


ONE BASIC DESIGN FOR EVERY TANDEM APPLICATION



DOUBLE-DRIVE

TRAILING AXLE



TRAILER

SIMPLICITY OF DESIGN

minimizes the number and total weight of component parts and increases the functional performance of each part.

PARALLELOGRAM FORM

permits extreme flexibility while keeping the axles parallel to each other and the wheels parallel to the frame.

EQUALIZING BEAMS

assure equal distribution of the load between the axles regardless of road or load conditions.

TORQUE RODS

reduce the tendency of the axle housings to rotate due to starting or braking action.

RUBBER BUSHINGS

at all points of wear prolong life and reduce lubrication needs.

The famous family of Hendrickson Tandems—the Series T, the Series RT, and the Series R are manufactured by the Hendrickson Motor Truck Co., 8001 W. 47th St., Lyons (Chicago Suburb), Illinois.

**HENDRICKSON
TANDEM**

*What the Trade
Thinks of the*
**No. 686
IDLER ARM
SILENCER**



Here's what the men who actually installed the Champ-Items No. 686 Idler Arm Silencer for 1949-54 Chevrolet Cars have to say:—

"We have installed unit on 1950 Chevrolet and it works fine. Took 30 minutes to install." *Pembroke, Georgia.*

"We have received your new Champ-Items No. 686 and it is just what the doctor ordered for Chevrolet. We put it on in 20 minutes." *South Dartmouth, Mass.*

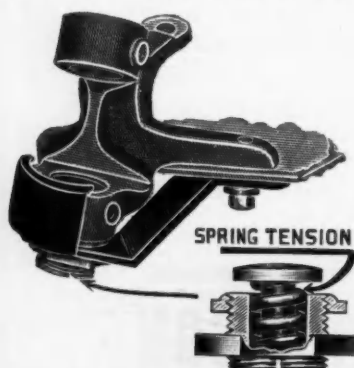
"Looks good. Took 15 minutes to install." *La Rue, Ohio.*

"The men in our service department like the 686 very much. It took 15 min. to install." *Conneautville, Pa.*

"We have installed the steering idler arm silencer No. 686 and believe it to be the best we have been able to buy. We think you should have about 20 min. to install." *Burleson, Texas.*

"Required about 20 minutes to install—Results very satisfactory." *Florida.*

These and many other letters are on file in our office and are testimony of the effective results you may expect from this Champ-Items.



Constant Spring Tension Does It!

**ORDER FROM
YOUR JOBBER**



CHAMP-ITEMS, INC.
6191 Maple Ave., St. Louis 14, Mo.

August Roundup

Continued from Page 212

users responsible for tax collection on fuel other than gasoline. H 447—amending truck classification in municipalities for registration purposes.

Michigan: H 157—limiting exemption of non-resident vehicles from the state's Motor Carrier Act to vehicles from states extending similar exemptions to Michigan vehicles.

New Jersey: S 33—amending bus mileage tax to base assessment of tax on scheduled bus mileage in municipality. S 208—extending until March 31, 1958, the exemption from the 22,400-lb single axle load limit for vehicles originally registered in the state, or contracted for purchase, on or before March 1, 1950.

Safety Awards

Fleets awarding their outstanding, safe drivers in the past month include:

Jack Cole Co., Inc., Birmingham, Ala.—to 20 drivers. All but three of the drivers have safe truck driving records of five years or more.

Fruehauf Trailer Co., Detroit—to 94 driveway division drivers. Their total accident-free record is 255 years, 25,500,000 miles.

Schulze and Burch, Chicago—to 78 drivers. Nine of the drivers received watches for their individual records of five years or more of accident-free truck driving.

Holland Motor Express, Inc., Hol-

(TURN TO PAGE 216, PLEASE)

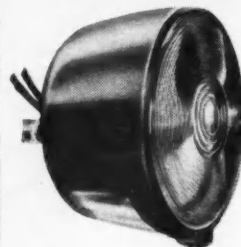


"I trust your gas can deposit is just as outrageous as last trip!"

NEW!

CATSEYE

No. 90 Combination Lamp



It's a:
Stop Light
Tail Light
License Light
Class A type I
Direction
Signal

Completely sealed with full lucite cup liner, front and back gaskets and synthetic rubber bumper which holds bulb tight and seals brass socket. High intensity red lucite lens. Change bulbs by only loosening one screw. Weighs only 8 oz. 6-8V 3-21 CP D.C. Bulb.

COLUMBUS METAL PRODUCTS, INC.
COLUMBUS 8, OHIO

WOHLERT PARTS have been installed universally for over 30 years by Independent Repairmen, Fleet Owners and Car Dealers. They have been COMPARED & COPIED.

Wohlert
LANSING 5 MICHIGAN

W. G. B. makes OIL FILTERS

from
**60 to 750 Cu. In.
Capacity**

...and Cartridges for
all makes of Filters.



Write for Details

W. G. B. OIL CLARIFIER, INC.
First By Test Since 1931 KINGSTON, N. Y.

**HEAVY DUTY
MOTOR TRUCKS
GASOLINE ELECTRIC
GENERATING SETS**

DUPLIX

**TRUCK COMPANY
LANSING, MICHIGAN**

Here's why this different kind
of battery cuts operation costs!

Needs water
only $\frac{1}{3}$ as often



Phone Prest-O-Lite Wholesaler
for Special Fleet Prices

TOPS FOR TIRES
JOB-DESIGNED
KEN-TOOLS
HAND-FORGED FROM
CHROME NICKEL ALLOY STEEL
FOR EXTRA STRENGTH AND EXTRA LONG LIFE



T-1X 18" Straight Spoon
T-2X 18" Curved Spoon
T-21R 18" Drop Center Tool—eliminates slipping and tube pinching
T-17 New LifeGuard Tube Remover
T-5B 17" All-Purpose Tire Tool—famous favorite for all-around work
T-66 Universal Hub Cap Remover for all cars—prevents marring—keeps cap from dropping—satisfaction guaranteed
T-10 Head Spreader for easing inspection and repair

SEE YOUR JOBBER on the complete line of Job-Designed Ken-Tools. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. THE KEN-TOOL MFG. CO., AKRON 5, OHIO.



QUALITY YOU CAN SEE

In the world's most complete line of replacement axle shafts!

**US
AXLE SHAFTS**



FINEST ALLOY STEEL
RIGIDLY TESTED & INSPECTED
HEAT TREATED
FIT EVERY CAR, TRUCK OR BUS
THE U.S. AXLE COMPANY, INC. POTTSTOWN, PENNA.
"THE WORLD TURNS ON U.S. AXLES"

August Roundup

Continued from Page 214

land, Mich.—to 23 drivers. Total record of the group is 99 years and about 7 million miles of accident-free driving.

Terminal Transport Co., Inc., Atlanta, Ga.—to 91 drivers. Of these, 29 have safe truck driving records of five years or more.

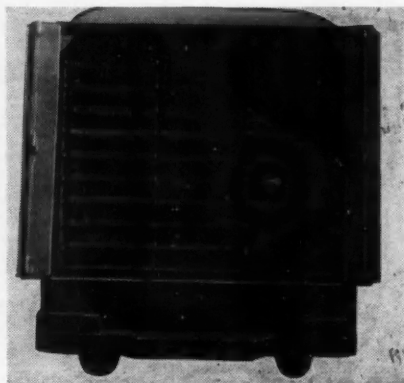
Carolina Freight Carriers Corp., Cherryville, N. C.—to 223 drivers. Thirty-one of the drivers have individual records of 10 years or better of safe truck driving.

Sanders Motor Freight, Inc., Oakland, Md.—to 11 drivers. Four of the drivers were presented with government bonds.

Decatur Cartage Co., Chicago—to 108 drivers. Seven have accident-free records of 10 years or more.

Houston Lighting and Power Co., Houston, Tex.—to 403 drivers. Reported to be a probable national record for utility companies, every one of the drivers has completed at least one year without a chargeable collision.

Utility Bakery Unit



Utility Truck Distributors, Inc., Union City, Ind., have announced a new parcel delivery body—the "Utility Bakery Body," designed to carry a larger bread load and still give additional freedom and ease of operation to the routeman. In the front it has a 180 deg fully-curved windshield to prevent any obstruction of the driver's vision. It is designed to allow the driver to move freely inside the cab or from the full opening rear doors. Both the rear door and side step-ups are constructed lower to ease the strain of climbing in and out of the truck. "Saf-T-Trak" has been placed on all steps as another safety feature to prevent slipping when operating out of the unit. Eight-, 10-, and 12-ft body lengths are available.

HUNTER Cargo Cooler



COVER 70% OF ALL
MAKES OF TRUCKS
AND BUSES ARE
Zollner EQUIPPED
ZOLLNER
HEAVY DUTY PISTONS
ZOLLNER MACHINE WORKS FORT WAYNE, IND.

**FRINK
SNO-PLOWS**
Both "V" TYPE and
ONE WAY BLADE TYPE
hand or power hydraulic control
FOR ALL MOTOR TRUCKS
FROM 1½ to 10 TONS
FRINK SNO-PLOWS, INC., CLAYTON, 1000 Isl., N.Y.
DAVENPORT-BESLER CORP., DAVENPORT, IOWA
FRINK SNO-PLOWS OF CAN. Ltd., TORONTO, ONT.

FIRST PLACE TO LOOK
for sealing parts . . .
your VICTOR wholesaler!

VICTOR
Gaskets Packings
and Oil Seals

VICTOR MFG. & GASKET CO.
P. O. Box 1333, Chicago 90, Ill.

GALION

the name to remember for . . .

- HYDRAULIC HOISTS
- HYDRAULIC END-LOADERS
- DUMP BODIES FOR ALL PURPOSES

The **GALION** Allsteel Body Company

GALION • OHIO

We lo
bigg
and
mainte
Now
Alumin

Frankly
that be
wh
that mu

Those al
get more m
since the w
pack a l

EASTERN FLEET OWNER REPORTS:

*We looked at the
bigger tire mileage
and the drop in
maintenance costs...
Now we buy Alcoa
Aluminum Wheels 100%*

*We bought enough Alcoa Aluminum
Forged Disc Wheels to outfit
one of our big tractor-trailer
rigs—just to try them out.*



*I, for one, was skeptical—but my
foreman had heard about them and
insisted we give them a trial.*



*Frankly, I didn't believe the reports
that began coming in. After all,
who'd think there was
that much difference in wheels?*



*I checked and there it was in black
and white—lower maintenance
costs and tire mileage
were really outstanding.*



*How can you argue against figures?
We began outfitting all our rigs with
Alcoa Aluminum Wheels after that!*



*Those aluminum wheels are terrific! We
get more miles out of a set of tires, and
since the wheels weigh so much less, we can
pack a lot more payload onto each trip.*



Light weight, greater tire mileage and lower maintenance are only a few of the many advantages you'll find in Alcoa® Aluminum Forged Disc Wheels. In addition, these wheels are made from a one-piece forging which means they can be, and are, fabricated to near-perfect roundness. Because of this, they are true-running wheels that are in balance from the start—and they stay in balance longer even with roughest usage!

Alcoa Aluminum Forged Disc Wheels never need painting... and since aluminum will not corrode, even on contact with rubber, rim surfaces remain smooth. Tires slide easily from them. So, for the whole story on this modern wheel, write: ALUMINUM COMPANY OF AMERICA, 1871-H Alcoa Building, Pittsburgh 19, Pennsylvania.



ALCOA
ALUMINUM

ALUMINUM COMPANY OF AMERICA

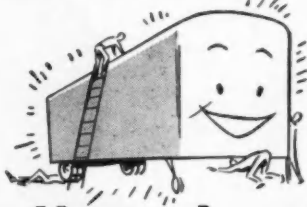
While your plant is  closed
and you're  on vacation, have
your idle trailer equipment 

completely serviced at your nearby



Branch. We'll be working to

put 'em in shape



for those

peak

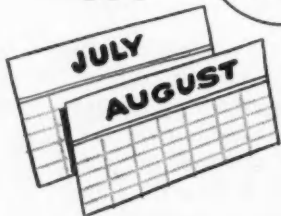


hauling days ahead.

At



there are big money-saving



Vacation Specials — Save on

FREE! Lubrication
on trailers serviced
in JULY - AUGUST

**T/M Tandem
Rebushing**
\$54⁴⁵ (REGULAR \$59.50)

**NEW T/M
Hubodometer \$21.50**

**PAINTING AND
RELINING
TRAILER BODIES**

TRAILMOBILE INC.

Subsidiary of Pullman Inc.

*The Trend
is to* **TRAILMOBILE**

Always have
your trailers serviced
where you see this
familiar sign



goo
to

the
do

For gen
lines yo
surpasse
used as
lines wh
by auton
standar
form an
is equip
He can
the seld
to stock
NAPA
shipmen

This u
coverag
you mak
with cor

COMMERCIAL C

*

Your
N.A.P.A.
Jobber
is a
good man
to know!



the genuine quality of these nationally advertised brands is
doubly assured by the makers' integrity and the NAPA Seal.

For genuine quality and coverage, the group of lines your NAPA Jobber stocks cannot be surpassed. Many of these NAPA lines are widely used as original equipment. In every case, the lines which bear the NAPA Seal are recognized by automotive engineers as meeting the highest standards of quality. And combined with this uniform and dependable quality, your NAPA Jobber is equipped to offer you extraordinary service. He can replenish his stock overnight—or obtain the seldom-needed parts no jobber can afford to stock, in record time . . . from his nearby NAPA Warehouse. There's no waiting "for shipment from the factory."

This unbeatable NAPA combination of quality, coverage and service is yours in any purchase you make from your NAPA Jobber. You can buy with confidence, because he has at his command

all the facilities, resources and experience of a great national organization devoted to the purpose of serving your needs well. Wouldn't it pay you to concentrate *your* purchases of parts and supplies with *him*?

National Automotive Parts Association, Detroit,
in behalf of the thousands of independent

N.A.P.A.

JOBBER

who supply fleet operators and the automotive repair trade from coast-to-coast with these*—and many other—nationally advertised brands of quality automotive parts and supplies.

*Famous names in Automotive products distributed by NAPA

This extra pay lets your

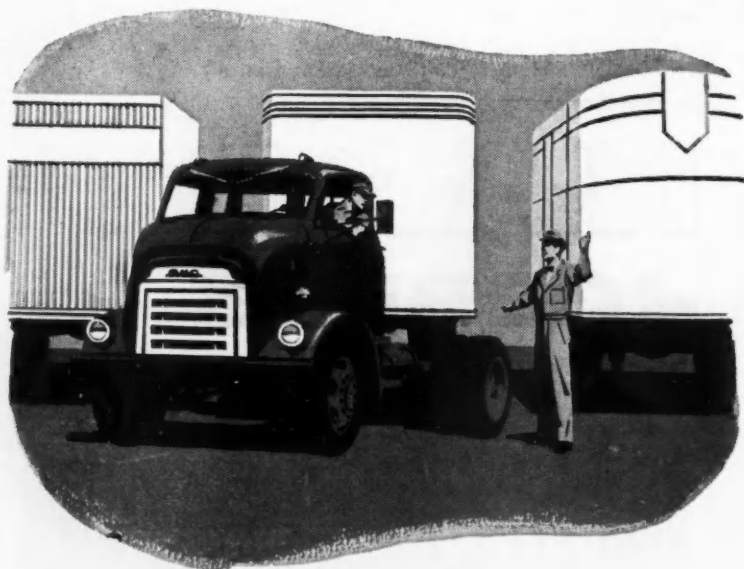
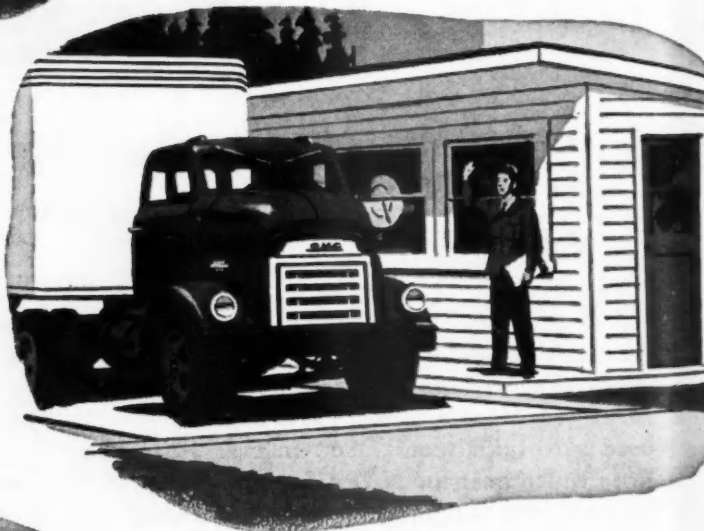


THEY BOOST THE BULK OF YOUR PAYLOADS

These trim-lined, spacesaving c.o.e.'s let you haul *bonus-capacity*, square-nosed 35-foot trailers within 45-foot limits. And—from the F630 up—you can do it even with a sleeper cab!

THEY INCREASE YOUR TONNAGE EVERY TRIP

GMC c.o.e.'s are engineered to make room for the last possible ounce of payload within the bridge formulas and weight laws of any state. You collect on as much as 2 tons or more *extra* as compared to conventional rigs.



THEY OPEN THE DOOR TO INTERCHANGE BUSINESS

These versatile tractors can be switched to *any* size, shape or type trailer at any point in the trip. No fifth-wheel or kingpin changes are necessary. And remember—interchange hauling is now a multimillion-dollar operation.

Big

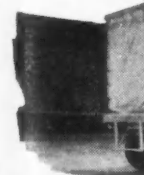
Fruehauf Bu
The Tandem
The Tandem
And Two

RUBBER-RIDE S

The leaf-spring
to lubricate!
points of tension
of metal again
with load-adjust
ride that's real
ioned — Notbi



Finest S



PATENTED M SINGLE AXLE

Fruehauf's p
Rate automa
the spring t
load weight,
smoothest po
cargoes. Eas
Re-alignmen

COMMERCIAL

Biggest Choice of Tandems

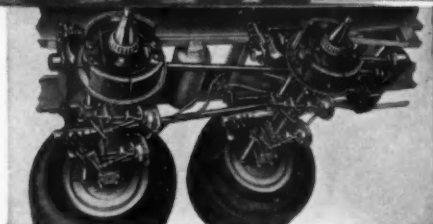
ON THE TRAILER MARKET!

Fruehauf Builds Them... And Builds Them Best...

The Tandem That Never Requires Lubrication...

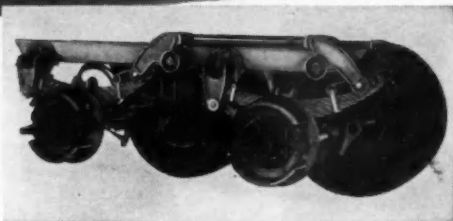
The Tandem That Produces Top Tire Mileage...

And Two Great New Foolproof Adjustables!



RUBBER-RIDE SPRING-TYPE TANDEM

The leaf-spring tandem you never have to lubricate! Rubber-cushioning at points of tension eliminates the rubbing of metal against metal. Leaf springs with load-adjusting features provide a ride that's *really smooth. Rubber-Cushioned — Nothing To Lubricate!*

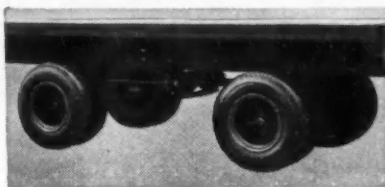
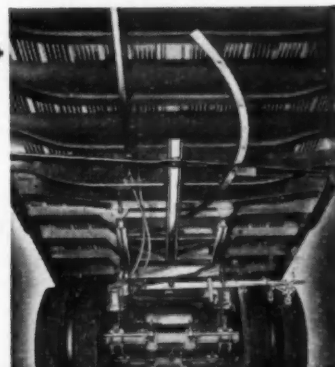
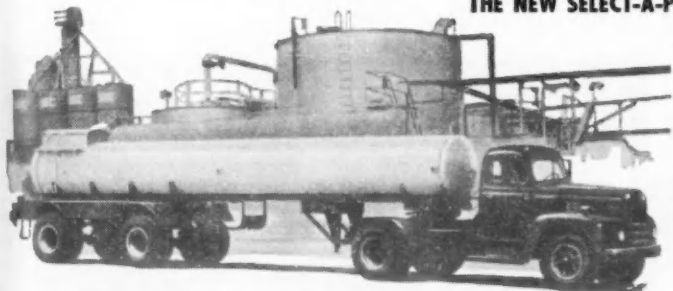


TIRE-SAVING GRAVITY TANDEM

The only tandem that trails so perfectly on curves, adjusts so easily to crowned roads, and eliminates brake hop. Owners report up to 3 times normal tire mileage records. *The Only Completely Guaranteed Tandem!*

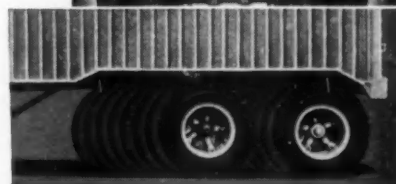
THE NEW SELECT-A-POINT ADJUSTABLE TANDEMS

Available either with Rubber-Ride or Gravity Tandem. It's adjustable to 9 positions in increments of 6 inches. Selector is easily moved to desired location, and husky king pin automatically locks in place as Trailer is moved to new axle location. *The Only Foolproof Adjustable Tandems!*

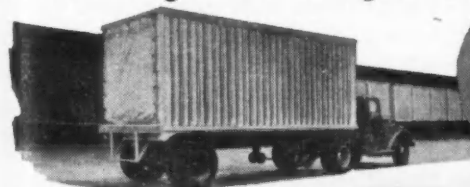


GRAVITY TANDEM SPREAD-AXLE

Providing added legal payload in certain states, the GT Spread-Axle unit insures equalization of the load on all wheels. Torsion springing provides a smooth ride. *Carries The Same Complete GT Guarantee!*

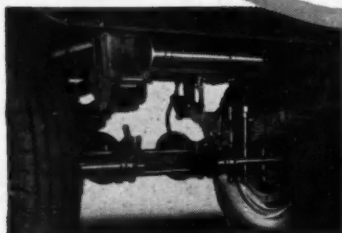


Finest Single Axle Design, Too!



PATENTED MULTI-RATE SINGLE AXLE

Fruehauf's patented Multi-Rate automatically adjusts the spring tension to the load weight, providing the smoothest possible ride for cargoes. *Easy, Exact Axle Re-alignment!*



FRUEHAUF

TRAILERS

"ENGINEERED TRANSPORTATION"



World's Largest Builder of Truck-Trailers
FRUEHAUF TRAILER COMPANY
DETROIT 32, MICHIGAN

FRUEHAUF TRAILER COMPANY

10941 Harper Avenue, Detroit 32, Michigan

- ☐ Please send a free completely-illustrated copy of your new folder "Fruehauf Underconstructions."
- ☐ I am interested in converting from single axle to tandem — please send the free folder "Change Axles Into Dollars" with conversion cost figures.

NAME _____

COMPANY _____

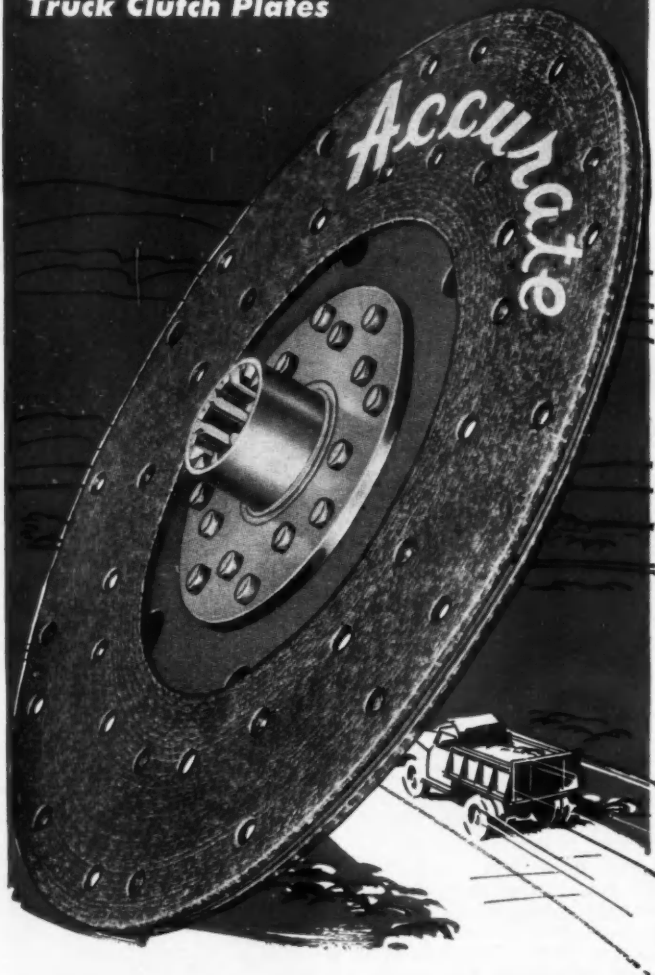
ADDRESS _____

CITY _____

STATE _____

**MILES MORE WEAR
MONTHS MORE PERFORMANCE**

**Accurate's Tough Duty
Truck Clutch Plates**



Into each Accurate truck clutch plate goes special steels needed specifically to carry the extra torque load of *Tough Duty* operation. This, combined with heat-resistant facings of superior quality is your assurance of miles more wear . . . months more performance. You will find installation easier, too, with Accurate's self-aligning pointed hub splines. Made to precise O. E. M. specifications, Accurate has a complete line of clutches for every line of trucks.



There are Accurate truck clutch plates and pressure assemblies to meet your specific needs. Sold or economically exchanged by your nearby Accurate jobber . . . write for his name.

Accurate

CLUTCHES

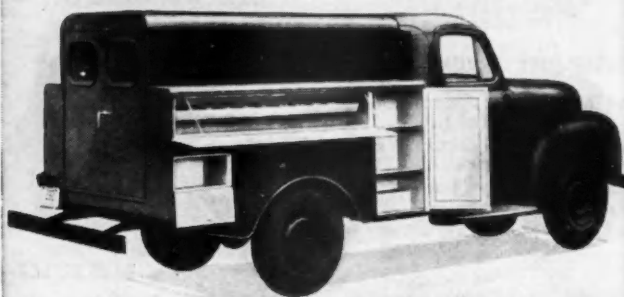
ACCURATE PARTS MANUFACTURING CO.

1600 S. Ashland Avenue, Chicago 5, Illinois

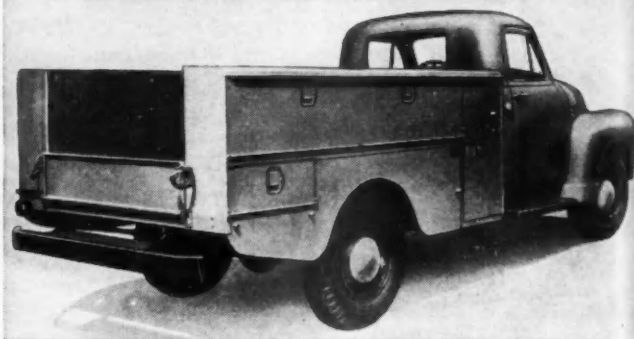
STAHL



**AMERICA'S BEST BUY IN
UTILITY SERVICE TRUCK BODIES**



**1/2-TON, 3/4-TON, 1-TON, 1 1/2-TON,
WITH SINGLE OR DUAL REAR WHEELS**



Stahl builds utility bodies for many of America's best known utilities—builds them with unsurpassed precision and care. Look at the advanced engineering and the proved construction features of CRAFTSMAN Utility Service Bodies before you buy.

STAHL METAL PRODUCTS, INC.
3490 W. 140th Street • Cleveland 11, Ohio

**WRITE FOR
NEW LITERATURE,
PRICES AND
SPECIFICATIONS**





IT WILL PAY YOU TO ADOPT THE "Holland-Apgar Treatment" in Transporting Livestock



Horse transportation unique?

In transportation of any live cargo, the condition of the animals on delivery is the important thing. That's why Anderson Bros., Inc., Red Bank, N. J. have adopted the Holland-Apgar safety fifth wheel for their trailers.

"Treatment in transit is paramount to the well-being of the animals. This pays off by keeping up the weight because of the contentment of the livestock," says President James H. L. Anderson.

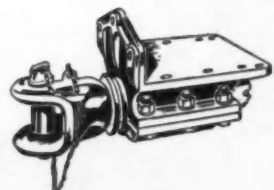
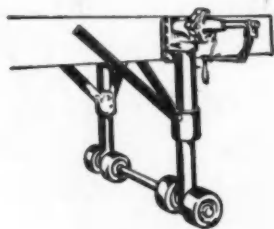
"Continual off-balance of the semi-trailer on curves — in and out of traffic — loading and unloading difficulties have taken their toll with us."

Tells Why Holland-Apgar Fifth Wheel Adopted

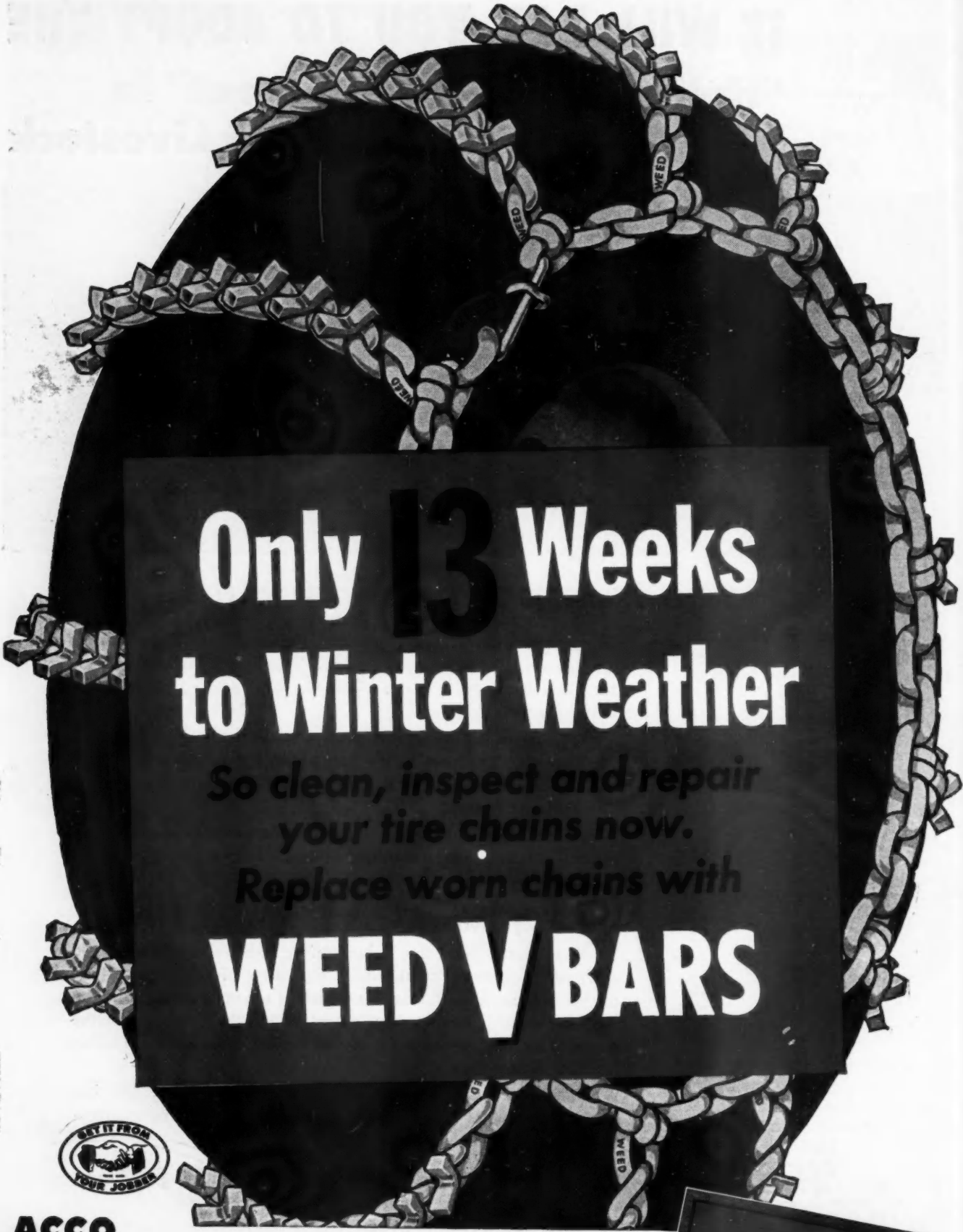
"We had heard about this unique safety fifth wheel which offered a 4-point suspension at all times, regardless of the angle of the tractor to the trailer. It takes no stretch of the imagination to figure out what this has meant to our operation and the well-being of the cargo. This also means a lot to our drivers, who are responsible for their loads in transit."

Whether your loads are animals, goods or materials, you'll find that installation of Holland-Apgar Fifth Wheels will increase the safety and performance of your fleet.

Better Coupling Equipment is Our ONLY Business



HOLLAND HITCH COMPANY
HOLLAND • MICHIGAN



Only 13 Weeks to Winter Weather

*So clean, inspect and repair
your tire chains now.*

Replace worn chains with

WEED V BARS



ACCO

In Business for Your Safety

**AMERICAN CHAIN DIVISION
AMERICAN CHAIN & CABLE**

York, Pa., Chicago, Denver, Houston, Los Angeles, New York, Philadelphia, Pittsburgh, Portland, Ore., San Francisco, Bridgeport, Conn.



ASK A

Al
As
Da
Ga
K
Le
Ma
Na
Ne
R
R
R
S
S
T
U
U
W
W

COMMERC

**ON THE
PENNSYLVANIA
TURNPIKE**

**IT'S ONE
OUT OF THREE!**



ASK ANY OF THESE USERS

Akers Motor Lines, Inc., *Gastonia, N. C.*
Associated Transport, Inc., *New York*
Davidson Transfer & Storage, *Baltimore*
Garrett Freight Line, Inc., *Pocatello*
Kramer Bros. Frt. Lines, Inc., *Detroit*
Lee Way Motor Freight, Inc., *Oklahoma City*
Mason & Dixon Lines, Inc., *Kingsport, Tenn.*
Navajo Freight Lines, Inc., *Los Angeles*
Norwalk Trucking Company, *Norwalk, Ohio*
Ringsby Trucking Co., Inc., *Denver*
Riss & Company, Inc., *Kansas City*
Roadway Express, Inc., *Akron*
Southern Express, Inc., *Dallas*
Standard Oil Company (Ohio), *Cleveland*
St. Johnsbury Trucking Co., Inc., *Boston*
Trans-American Frt. Lines, Inc., *Detroit*
United Truck Lines, Inc., *Spokane*
U. S. Truck Lines, Inc. of Delaware, *Cleveland*
Western Express Company, *Cleveland*
Winston and Newell Company, *Minneapolis*

By actual count on the Turnpike one out of three cross-country truckers is a user of CEMCO TRAILER JOCKEYS for faster spotting of trailers at terminals.

Scores of truckers have seen the CEMCO light—they're spotting trailers at busy terminals with CEMCO TRAILER JOCKEYS. Some report that one man now does what required two men by the old hand-cranking method. Others describe the CEMCO as "indispensable for economical operation." The CEMCO fits almost any tractor having a minimum dimension of 50" from back of cab to center-line of axle.

**THEY KNOW THE VALUE
OF CEMCO**

Here's what a CEMCO TRAILER JOCKEY offers you—37,500# hydraulic lifting power at center line of fifth wheel. Driver need not leave cab during entire operation by using cab control of king-pin release (either air or vacuum type). Glad to send you names of users near you. Ask them for yourself—don't take our word for it. Complete specifications are yours for the asking.

CEMCO

A NAME THAT HAS MEANING IN THE TRUCKING INDUSTRY

CEMCO INDUSTRIES, INC.
GALION, OHIO

Manufacturers of:

TRAILER JOCKEYS • HYDRAULIC TAILGATES •
UNDERBODY HOISTS • SPLIT-SHAFT POWER TAKE-OFFS

NEW LOW

For COLE-HERSEE

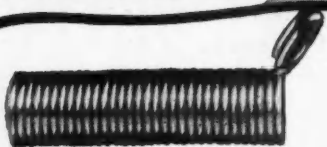
TRAILER

4, 6 & 7 POLE

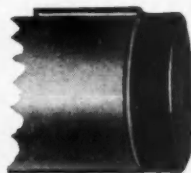
THE INCREASED DEMAND FOR THESE UNITS HAS ALLOWED US TO MAKE SAVINGS IN PRODUCTION WHICH WE PASS ON TO YOU. THIS IS THE LOWEST PRICED, HIGHEST QUALITY TRAILER CONNECTOR ON THE MARKET TODAY.



They're **THE FIRST CHOICE
WITH TRUCKERS BECAUSE:**



This cable protector, a Cole-Hersee exclusive, protects expensive cable, eliminates fraying, offers a rugged 7½" grip for easy uncoupling. Special hook for hanging plug up when not in use.



Every Cole-Hersee 4 and 6 pole trailer plugs are protected with a rugged, rubber bumper that gives complete outer shell protection, reduces wear, eliminates plug damage.

COLE-HERSEE CO.

20 OLD COLONY AVENUE, BOSTON 27, MASS. U. S. A.

P
FL
CO



Proof of
pole Cole
tested and
after a 75
it twice c



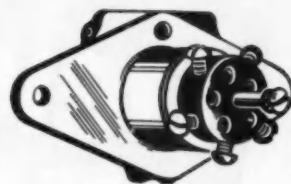
Locking f
matic rel
go automa
er fails
Cole-Hers
nothing to
ture.

PRICES

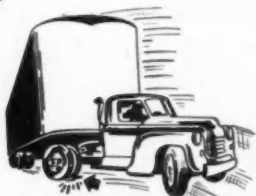
FLAP-LOCK CONNECTORS



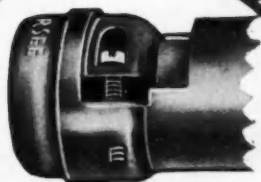
Cole-Hersee connectors are electrically perfect, voltage drop is minimized. They are self-contained with only one replaceable part. Only Cole-Hersee reinforces plug shell for longer life.



Screws cannot fall out and be lost when connecting cable to socket. Only Cole-Hersee offers this feature.



Proof of ruggedness — a 7 pole Cole-Hersee plug was tested and found 100% O.K. after a 75 ton trailer ran over it twice on a concrete floor.



Wire end of plug is of rugged reinforced construction concealing and protecting binding screws — they cannot be bent or broken.



Locking flap has automatic release that lets go automatically if trucker fails to uncouple. Cole-Hersee covers have nothing to break or rupture.

Only Cole-Hersee uses stainless steel "lifetime" springs, brass pins and heavy electroplated terminals for perfect electrical connections.

**DON'T BE MISLED BY FALSE
CLAIMS—THERE IS NO FINER
TRAILER CONNECTOR THAN
COLE-HERSEE AND IT COSTS LESS**



SEND FOR CONDENSED TRAILER CONNECTOR CATALOG AND NEW PRICE LIST

exceeds

SAE SPECIFICATIONS

**Use Delco Super 11 heavy-duty brake fluid
for the TOUGH braking jobs!**



Delco Super 11 heavy-duty brake fluid exceeds SAE specification 70R1 which establishes performance standards for heavy-duty brake fluid, including operating temperature ranges, stability, lubrication, effect on metals and rubber—to name a few—and also exceeds U.S. Federal specification VV-F-451a.

Delco Super 11 is packaged in any amount convenient for you, from 16-ounce to 54-gallon containers. Place your order with your United Motors distributor today.

A GENERAL MOTORS PRODUCT  A UNITED MOTORS LINE

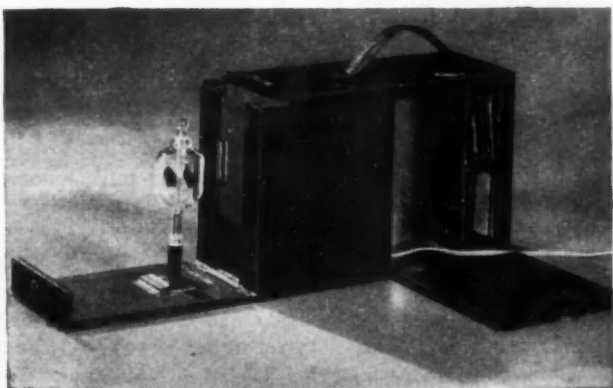
DISTRIBUTED BY WHOLESALERS EVERYWHERE

moraine products

DIVISION OF GENERAL MOTORS CORPORATION, DAYTON, OHIO



Why E-Z-EYE makes good business sense . . .



SEE THIS TEST RIGHT AT YOUR DESK

Prove to yourself the great difference in solar heat transmission between ordinary untinted windshields and E-Z-Eye. Ask for a radiometer demonstration. Write: Dept. 5484, Libbey-Owens-Ford Glass Company, 608 Madison Ave., Toledo 3, Ohio, and we'll send a man to your desk.

E-Z-EYE is *protection* . . . for you and your drivers. Long experience has shown that a windshield of E-Z-EYE Safety Plate Glass *protects* your driver's eyes against the nagging glare of sky and sun that makes him tired and ripe for an accident.

E-Z-EYE also helps keep solar radiation from pouring through the windshield and heating the cab like an oven. Make sure the next truck you buy has E-Z-EYE in both the windshield and in the side windows. The benefits you get are worth far more than the slight additional cost.

• LIBBEY • OWENS • FORD GLASS CO., TOLEDO 3, OHIO

E-Z-EYE SAFETY PLATE

with the shaded windshield

Reduces Glare, Eyestrain, Sun Heat



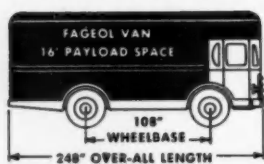
HEAVY loads... BULK loads you carry MORE PAYLOAD with *FAGEOL VANS*



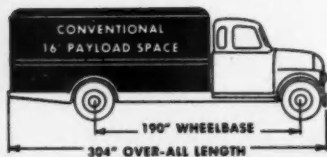
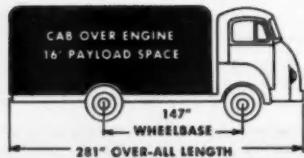
Fageol Van owned by Holsum Baking Co., Harlingen, Texas. Vans are available in 20 to 35 ft. body lengths and 72 to 98 inch inside heights. Capacities are 713 to 1,945 cubic ft. International R-160-170-180-185-190-200 series chassis.

MORE PAYLOAD IN SHORTER TRUCKS MEANS MORE PROFIT FROM FEWER TRUCKS

Compare the Fageol Van payload area with cab-over-engine and conventional trucks!



← Bonus Payload Area over driver-engine compartment



Whether you haul heavy loads—or bulk loads, you can carry **MORE PAYLOAD** with *Fageol Vans*.

On heavy loads, your Fageol Van will transport 1,500 to 3,500 pounds *more payload* than any other truck of the same length.

This means—on the basis of the accepted profit rate of \$1 per pound of truck payload per year—you can earn \$1,500 to \$3,500 more annually with each Fageol Van.

If you haul big bulk loads, you can carry 200 to 500 cubic ft. more merchandise in your Fageol Van. Therefore, each Fageol Van will earn you \$1,000 to \$2,500 more per year. (Based on average profit valuation of \$5 per cubic ft. established by leading trucking companies.)

A-9174



FAGEOL VANS manufactured by
the Twin Coach Company, Kent, Ohio, are sold
by all International Dealers and Branches

for information, write to

INTERNATIONAL HARVESTER MOTOR TRUCK SALES DEPT.
180 NORTH MICHIGAN AVENUE • CHICAGO 1, ILLINOIS



Truck Operators everywhere report:

SEIBERLING THRU-WAY 125

Heavy Tread Truck Tire Outwears Them All!

"Chamberland's Express,"

Schenectady, N. Y. says:

SEIBERLING THRU-WAY 125 is an all-wheel truck tire . . . easy steering . . . sure-footed for traction . . . and up to 60° COOLER RUNNING than other heavy tread tires, proved in comparative tests. Seiberling Thru-Way 125 is the *only* heavy tread truck with HEAT VENTS!

"Our Tractor No. 113, equipped with 11:00 x 20 Seiberling Thru-Way 125 tires, has been running daily between New York and Schenectady.

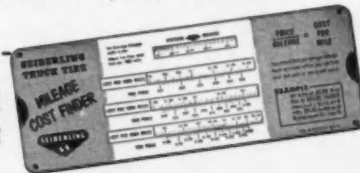
"Inspection of the drive wheel tires shows that they are only 25% worn after 38,131 miles! Needless to say we are very happy with these tires."

Try a test set yourself. You'll find that cost-per-mile comes down with Seiberling Thru-Way 125 tires. Choice of rayon or nylon in all popular over-the-road sizes. See your Seiberling Dealer.

SEIBERLING

AKRON, OHIO • TORONTO, CANADA

**FREE! SEIBERLING TRUCK
TIRE MILEAGE COST FINDER**



SEIBERLING RUBBER COMPANY, Akron 9, Ohio

Dear Sirs: Please send me, without obligation, a Seiberling Mileage Cost Finder that shows truck tire costs per mile at a glance.

Name _____

Firm Name _____

Street Address _____

City _____ State _____



one stands out

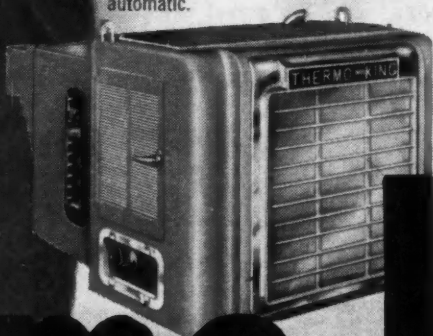
in truck refrigeration it's **Thermo King**

Thermo King truck refrigeration has stand out quality . . . because of experienced, thoughtful design and manufacture. The end product as a result is a fine piece of machinery made up of component parts, designed, engineered and assembled to "go" together.

Why not find out for yourself what Thermo King advanced engineering will do to help solve your own truck refrigeration problems?

LOOK OVER THERMO KING'S EXCLUSIVE STAND-OUT FEATURES

- Only self-contained, one-piece refrigeration unit that can be installed, replaced, serviced by simply removing four bolts . . . sliding out unit . . . no cables to disconnect . . . no fuel connections . . . no muss or fuss.
- Hot gas defrost system gives quick action. It's fast . . . it's safe . . . it's automatic.
- Double duty starter-generator within single compact unit. Starting load relief device and patented pressure regulating valve.
- Counterflow cooling coil especially designed by Thermo King provides greater cooling capacity.
- There's a network of factory trained Thermo King service along the Nation's principal highways. Quick and efficient service for you, made easier by single package design. Complete unit can be serviced or replaced in minutes.



Thermo King

U. S. THERMO CONTROL COMPANY, 44 So. 12th St., Minneapolis, Minn.
WORLD'S LARGEST BUILDER OF GASOLINE ENGINE POWERED REFRIGERATION UNITS

Now filko achieves even greater precision durability
for longer-life heavy-duty ignition performance

Another Milestone First for Filko

New **nylon rubbing blocks**

for a new high in sustained efficiency

stainless steel springs

for a new high in enduring dependability

*these two new
advancements*

combined with Filko
exclusive Crown Jewel Quality
features listed below, set new
high standards for prolonged
heavy-duty ignition service.

- ① Hydrogen-brazed pure tungsten points
- ① Rigid one-piece deep channel arm
- ① Pure hard fibre machined bushing
- ① Balanced for speed range efficiency
- ① Perfected for functional precision

A new triumph for Filko ignition engineering! The
exclusive use of more enduring materials—Nylon Rubbing
Blocks and Stainless Steel Springs, give new functional
perfection that excels even Filko's previous endurance records
for superior continuous service in heavy
commercial transportation!

Standardize on perfection . . . capitalize on Filko
"milestone" achievements to further reduce
ignition operating and maintenance costs.

Patent No. 2599323
Other patents pending

filko

. . . created, developed and patented

"the Crown Jewels of Ignition."

F. & B. Mfg. Co., 4248 W. Chicago
Ave., Chicago 51, Ill. Warehouses
in Los Angeles, Oakland, Fort Worth,
New York, Boston, Cleveland, Atlanta

"57,000 Investors in Democracy"

HENRY FORD II

President, Ford Motor Company



"In the most practical way possible—the regular purchase of U.S. Savings Bonds—millions of Americans are demonstrating complete confidence in our form of government. Investors in democracy, they are freely staking their personal security on a fundamental faith in the future of our nation. I am proud that today more than 57,000 Ford Motor Company employees are participating in the Payroll Savings Plan. Last year they bought bonds worth \$25,000,000 at face value, and this year the total of their purchases will be even greater. Through their thrift they are helping to keep America strong."

Few investment groups are as important to America as the members of the Ford Payroll Savings Plan. They are *important* in size—57,000 men and women... important in buying power—they actually purchase \$25,000,000 in Savings Bonds every year... and *very* important to our economic stability—"through their thrift they are helping to keep America strong."

"Oh," someone may say, "Ford is a big company and they do things in a big way. It's easy for Ford to get thousands of people to sign up for the Payroll Savings Plan."

It was relatively easy for Ford, and it is easy for any company, large or small, to build a good Payroll Savings Plan if—(1) The head of the company recognizes the importance of the Payroll Savings Plan to the employees, the company, and the country; (2) If

he will show the same degree of personal interest that Mr. Ford takes in the Ford Payroll Savings Plan.

If you would like to match Mr. Ford's Payroll Savings record—percentage-wise, of course—all you have to do is to see to it that a Payroll Savings Application Blank is placed in the hands of every man and woman in your company. It will help, of course, if you remind them, over your signature, that the Payroll Savings Plan is a safe and sure road to personal security.

The Savings Bond Division, U.S. Treasury Department, Washington, D. C., is ready to provide all the help you need in the way of Application Blanks, literature, and a complete outline of a simple, person-to-person canvass that will put an application blank in the hands of *every* one of your employees. Your employees will do the rest.

The United States Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

COMMERCIAL CAR JOURNAL

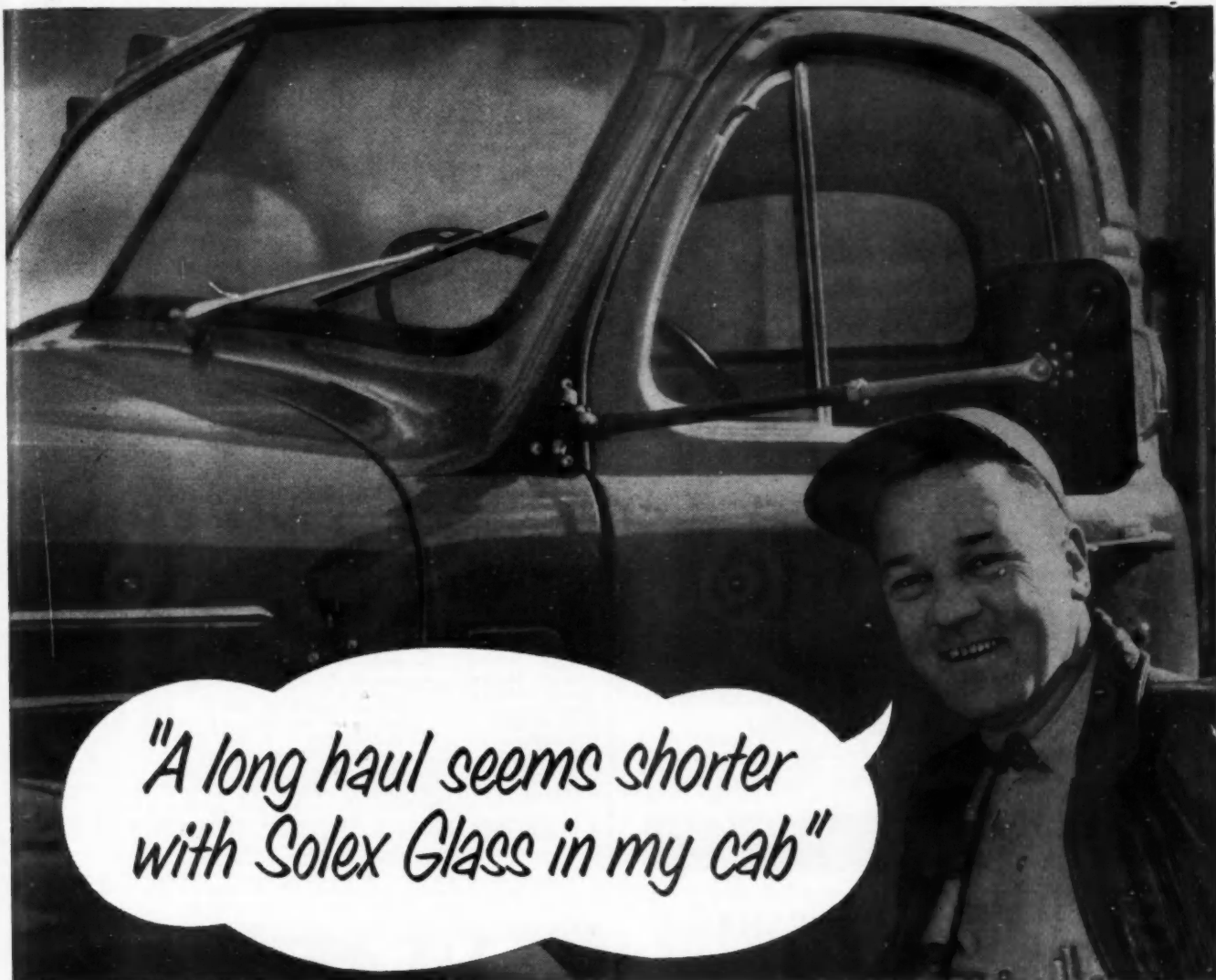


BECAUSE
Safety
and absorb
driving mo
fatiguing.
ing is safer

By cutti
reduces the
by long d
Yet vision
mits 70%
light.

And, by
the total s
interiors c
Your fle





BECAUSE Solex Heat-Absorbing Safety Glass reduces sun glare and absorbs solar heat, it helps make driving more comfortable and less fatiguing. Trips seem shorter, driving is safer and more pleasant.

By cutting down sun glare Solex reduces the eye-fatigue often caused by long driving in bright sunlight. Yet vision is good because Solex admits 70% to 75% of the total solar light.

And, by absorbing up to 50% of the total solar heat, Solex keeps cab interiors cooler.

Your fleet can provide this added

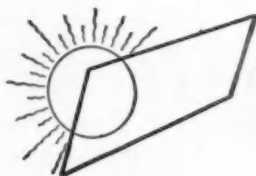
safety and comfort for your drivers if you specify Solex in all new equipment and begin a program of planned replacement with Solex in your present trucks.

The famous types of Pittsburgh Safety Glass—Duplate, Duolite and Herculite—are available in Solex as well as in conventional clear glass. Pittsburgh Plate Glass Company, Room 4263, 632 Fort Duquesne Boulevard, Pittsburgh 22, Pa.

Solex comfort in your offices and terminals

For greater comfort use Solex in your terminal and offices. Solex will reduce sun glare, and solar heat for more comfortable waiting, and more efficient working.

Solex is available in Plate Glass for single glazing as well as in Twindow—the window with built-in insulation. See your Pittsburgh Plate Glass Company dealer.



"the best glass under the sun!"



PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

WOODLIN learns that bus body builders are busybodies

Last month Woodlin Metal Products Company of Marshall, Michigan (the nation's biggest manufacturer of aluminum windows for the mobile home market) announced to the bus market that expanded facilities would allow them to devote part of their plant to building modern windows for bus body builders.

The idea of having an extruded aluminum frame with an exclusive rubber sealed glass and shaped to their specifications appealed to more manufacturers than expected.

Our sales staff has had a hard time visiting all the companies who showed interest. We'd like to take this chance to tell you that the offer still holds and if we haven't seen you yet—hang on—we'll be helping you with your problem as soon as possible.



WOODLIN METAL PRODUCTS CO.

MARSHALL, MICHIGAN

WOODLIN INC., 30 E. Palm Ave., Burbank, Calif.

WOODLIN PRODUCTS, P.O. Box 261, Texarkana, Texas



CRANKSHAFTS Rebuilt - Hard chrome surfaced CAMSHAFTS Reground Connecting Rods Rebuilt

Hard Chrome deposited on crankshafts by "Rotary Process" adds new shaft life. Shafts electro heat treated 3 times. Camshaft lobes reground to original lift. All parts carefully magnafluxed to detect hidden defects. Experienced Workmen—Specially Designed Machinery—Careful Inspection, guarantee each job.

Crankshaft Capacity

10" Stroke
24" Swing
96" Length

Camshaft Capacity

100" Length

Write for Information and Prices.



CLEVELAND HONE & MFG. CO.

8816 HARKNESS RD., CLEVELAND 6, OHIO

Serving the Nation's Largest Fleets



YOUNGSTOWN STEEL CAR CORPORATION

NILES, OHIO

Large scale producers of . . . big weldments on a production basis—die pressed channels for bus, truck and trailer chassis—railway cars, repairs and parts—miscellaneous heavy presswork.

HARD SURFACED CRANKSHAFTS FOR SALE

Arcplated*

Factory Standard Size

F.O.B. Charlotte, North Carolina
Exchange—Net

ACF-Brill	— Model 95, 130, 135	\$120.80 each
Buda	— Model 4DCS-844	210.96 each
Continental	— Model R6-R6602	161.94 each
Cummins	— Model H & NH-600	213.81 each
Fagol	— Model FTC 180	96.00 each
General Motors	— Model 4-71	125.98 each
General Motors	— Model 6-71	130.64 each
Hercules	— Model QXA-LD, JX-JXD	56.00 each
International	— All models Red Diamond	60.00 each
Waukesha	— Model 6MZR	76.80 each
Waukesha	— Model 140 GK-HS	121.90 each
White	— Model 24A	131.57 each

We Buy Used, Uncracked Crankshafts—Any Undersize

Write for complete information

AMERICAN CRANKSHAFT COMPANY

Charlotte 1, North Carolina

* Registered service-mark—patented crankshaft reclamation process.

SIoux NO. 645 WET VALVE FACE GRINDING MACHINE

More Dollar Value Than Ever Before

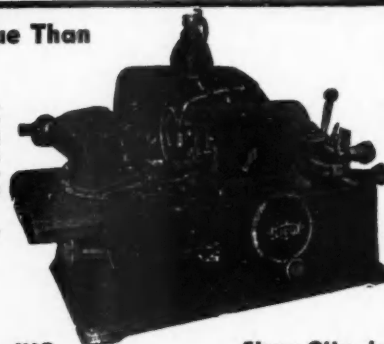
NEW — different — outstanding features. Wet grinds VALVES, VALVE STEM ENDS, TAPPETS and ROCKER ARMS—producing finest finish and factory precision.

Ask the SIOUX Jobber for full particulars.

Sold only through
Authorized SIOUX
Distributors

ALBERTSON & CO., INC.

Sioux City, Ia.



CLASSIFIED ADVERTISEMENTS

MANUFACTURERS' REPRESENTATIVES or salesmen calling directly on fleet accounts to represent our line of Oil Filters and Road Flares. Very profitable arrangement for the right man. Write Box 19, Commercial Car Journal, Philadelphia.

WANTED—MOTOR EQUIPMENT SUPT.

Beginning salary from \$7,100 to \$7,700 a year depending upon training and experience. Annual increases are automatic. Manage municipal garage. Motor vehicle fleet maintenance required. Position open to residents of Michigan, Illinois, Iowa, Minnesota and Wisconsin. Applications will be accepted until the needs of the service are filled. Write Personnel Division, City Hall, Madison 3, Wis.

BUY BONDS

Mr. D
is GR
but T
U
D



The NYLO-P
clusive in al
assures the
finest qual
ever offered
P&D Fuel
tured in th
finest equip
P&D Mar
reputation
highest qua
known thro
Industry for



COMMERCIAL

Mr. DL says: "GREASE
is GREAT for YOUR CAR—
but TOUGH on HANDS
UNLESS YOU USE
DL HANDI-CLEANER"

APPLY AND WIPE DRY **OR** RINSE WITH WATER!



DL Handi-Cleaner is now better than ever...with its new TWO-WAY ACTION it removes grease, dirt and grime either *with or without water*...

Fortified with Lanolin and Hexachlorophene it keeps hands soft and guards against infection. Use it...sell it...it's a profit maker.

Packaged in 14 oz., 3 lb., 4 1/2 and 5 lb. dispenser sizes, and 5 gal. containers.



MADE ONLY BY **BANITE CO.** BANITE BLDG., BUFFALO 4, N. Y.

PEE DEE SAYS:

Remember this word



"NYLO-PRENE"
DIAPHRAGMS

You'll be hearing a lot about them

The NYLO-PRENE Diaphragm is exclusive in all P&D Fuel Pumps and assures the driving public of the finest quality and performance ever offered.

P&D Fuel Pumps are manufactured in the most modern and finest equipped plant.

P&D Manufacturing Co., Inc. reputation for building only the highest quality products has been known throughout the Automotive Industry for over thirty-five years.



P&D Ignition Parts are your assurance of top quality—better performance—and satisfied customer acceptance.



MANUFACTURING CO., INC.

Established 1920

19-02 Steinway St., Long Island City 5, N. Y.



J 5286

NEW!

**INJECTOR TUBE
Service Tool Set**

for GM Diesel Engine
Models 2, 3, 4 and 6-71

**SAVES TIME • SAVES LABOR
GIVES FACTORY-PRECISION RESULTS**

Yes, now injector tube servicing can be done faster, more accurately than ever before... and with finished results that more nearly approach the original factory installation! Because, now, all the special tools required to perform the entire operation are contained in one complete, new Injector Tube Service Tool Set. Developed in cooperation with GM Diesel, the set includes nine brand new time-saving, labor-saving tools... and it comes conveniently boxed, as shown, with complete instructions! Order your Set now!

FREE! Kent-Moore's new 48 page Diesel Tool Guide... illustrating over 300 Diesel special service tools. Send for your copy today!

KENT-MOORE ORGANIZATION, INC.

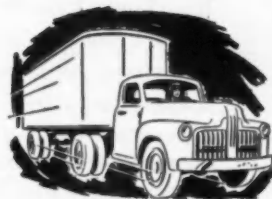
Engineers and Manufacturers of
Special Service Tools and Equipment



5-105 GENERAL MOTORS BLDG. • DETROIT 2, MICHIGAN

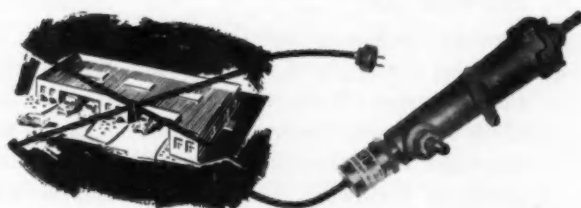
Why

KIM
Hotstart

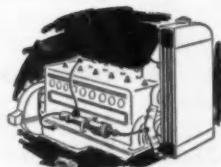


**electric pre-heater
pulls down high winter costs**

Quick, Easy Starts, Engine is already warmed up, with full power, ready for the road.



Warm Engines end need for heated terminals. KIM does not interfere with circulating systems or use of anti-freeze. Four Sizes—quickly installed on trucks, tractors, autos or stationary engines—diesel or gas.



Via Electric Plug-in, KIM draws cold water from engine, heats it, forces it back into engine at another point.

KIM HOTSTART electric pre-heaters are sold and installed by leading automotive suppliers. Get the jump on cold weather trouble by seeing them for detailed information, or write for literature.

KIM HOTSTART MANUFACTURING CO.
West 917 Broadway, Spokane 1, Washington

AC Spark Plug Div..... 8
 Accurate Parts Mfg. Co..... 210
 Airtex Automotive Div..... 183
 Albertson & Co., Inc..... 230
 Aluminum Co. of Amer.....89-199
 American Bosch Corp..... 145
 American Chain & Cable Co.. 218
 American Crankshaft Co..... 230
 American-Enka Corp. 62
 American Hammered Automot-
 tive Replacement Div..... 109
 American Liquid Gas Corp... 206
 Armstrong Rubber Co..... 36
 Arrow Safety Device Co..... 164
 Autocar Div. White Motor Co. 65

 Bacharach Industrial Instru-
 ment Co. 208
 Banite Co. 231
 Bartlett Trailer Corp..... 178
 Belden Mfg. Co..... 167
 Bendix Aviation Corp.
 Eclipse Machine Div..... 162
 Products Div. 95
 Marshall-Eclipse Div. 151
 Bendix Westinghouse Automot-
 tive Air Brake Co..... 115
 Black & Decker Mfg. Co.... 39
 Blackhawk Mfg. Co..... 152
 Blood Bros. Machine Div.... 149
 Boyertown Auto Body Wks... 233
 Breeze Corp., Inc..... 140

 Campbell Chain Co..... 188
 Carborundum Co. 161
 Cemco Industries, Inc..... 219
 Champ-Items, Inc. 214
 Champion Spark Plug Co.... 15
 Chevrolet Div. 177
 Chicago Pneumatic Tool Co... 58
 Chrysler Corp. (Parts Div.).. 43
 Cities Service Oil Co..... 139
 Clark Equipment Co.....103-104
 Classified Advertisements ... 230
 Cleveland Hardware & Forg-
 ing Co. 159
 Cleveland Hone & Mfg. Co... 230
 Cole-Hersee Co.220-221
 Columbus Metal Products, Inc. 214
 Continental Motors Corp.... 133
 Cooper Tire & Rubber Co.... 55
 Crescent Company, Inc..... 96

 Dana Corporaton121-122
 Delco Batteries 111
 Dodge Div. Chrysler Corp.
 2nd Cover

Dorman Products, Inc..... 180
 Duplex Truck Co..... 214
 du Pont de Nemours Co., E. I.
 143-179-191-192-193-194-211
 Eaton Mfg. Co..... 61
 Eberhard Mfg. Co..... 98
 Echlin Mfg. Co..... 134
 Eis Automotive Corp..... 160
 Electric Auto-Lite Co.....48-49
 Evans Products Co..... 130

 F & B Mfg. Co..... 227
 Federal-Mogul Service 32
 Fitzgerald Mfg. Co..... 181
 Ford Motor Co.....136-137
 Four Wheel Drive Auto Co.
 Back Cover
 Fram Corp. 173
 Frink Sno-Plows, Inc..... 216
 Fruehauf Trailer Co..... 209
 Fuller Mfg. Co..... 28
 GMC Truck & Coach Div.
 26-27-204-205
 Galion Allsteel Body Co.... 216
 Garrison Mfg. Co..... 12
 Globe-Union, Inc. 59
 Goodrich Co., B. F..... 52
 Goodyear Tire & Rubber Co...4-11
 Grey Rock Div., Raybestos-
 Manhattan, Inc. 33
 Griffin Lamp Co..... 125
 Gunite Foundries Corp..... 141

 Hansen Mfg. Co., A. L..... 202
 Harnischfeger Corp. 165
 Hastings Mfg. Co..... 113
 Hendrickson Motor Truck Co. 213
 Hennessy Sales Co., Jack P.. 124
 Hercules Steel Products Corp. 135
 Hertz Truck-Rental System.. 169
 Hodell Chain Co..... 174
 Holland Hitch Co..... 217
 Homestead Valve Mfg. Co... 195
 Hunter Mfg. Co..... 216
 Hygrade Products Div..... 3

 Illinois Auto Electric Co.... 196
 Inland Mfg. Div..... 44
 International Harvester Co... 67

 Johns-Manville50-51
 K-D Lamp Co..... 144
 K-D Mfg. Co..... 142
 Ken Tool Mfg. Co..... 216
 Kent-Moore Organization, Inc. 231
 Kim Hot Start Mfg. Co..... 231

Index to Up

*This Advertisers' Index is published
 of the advertising contract. Every
 rectly. No allowance will be made*

King-Seeley Corp. 132
 Kinnear Mfg. Co..... 138
 Kohler Company 170

 Lee Rubber & Tire Corp.... 13
 Leece-Neville Co. 10
 Libbey-Owens-Ford Glass Co. 223
 Linde Air Products Co..... 168
 Luber-Finer, Inc. 186

 Mack Trucks, Inc.....100-101
 Magnus Chemical Co., Inc. .. 212
 Malsbary Mfg. Co..... 123
 Maremont Automotive Prod-
 ucts, Inc. 129
 Mathieson Chemical Corp.... 163
 Mechanics Universal Joint Div. 119
 Midland Steel Products Co... 207
 Milwaukee Dustless Brush Co. 23
 Mohawk Rubber Co..... 234
 Moraine Products Div..... 222

 National Automotive Parts
 Assn. 203
 National Carbon Co..... 187
 National Motor Bearing Co... 45
 National Screw & Mfg. Co... 174
 Neapco Products Co..... 190
 Neway Equipment Co..... 54

 Oakite Products, Inc..... 14
 Olson Corp., J. B. E..... 1
 Owatonna Tool Co..... 176

 P & D Mfg. Co..... 231
 Packard Electric Div.....56-57
 Parish Pressed Steel Co....121-122
 Penn Body Div..... 166
 Perfect Circle Corp..... 16
 Phillips Petroleum Co..... 107
 Pittsburgh Plate Glass Co...38-229
 Prest-O-Lite Battery Co..... 215
 Pure Oil Company..... 131

 Reo Motors, Inc.....Front Cover
 Riker Mfg. Co..... 208



W

**batter
 3 year
 tough**



Willard B
 160-ampe
 used by th

**WIL
 FACTORIES**

to

published
ct. Every
be made

132
138
170

13
10
223
168
186

101
212
123

129
163
119

207
23
234
222

203
187
45
174
190
54

14
1
176

231
-57
122
166

16
107
229
215
131
ver
208

st, 1954

Up and Down Hill

20 hours a day... 40,000 miles a year



Willard

**batteries now giving nearly
3 years of service in nation's
toughest city bus operation!**



Willard BWG-4B-117, the
160-ampere-hour Willard Battery
used by the Pittsburgh Railways Company bus fleet.

The combination of tough, rugged Willard Bus Batteries and meticulous maintenance is continually extending average battery life for the Pittsburgh Railways Company fleet of 230 buses. The majority of these buses ply routes dotted with grades of 15% or steeper—work an average of 20 hours a day, 40,000 miles a year in what has been described as the nation's toughest city bus operation. Yet this fleet's Willard Batteries are now giving an average of almost 3 years of service!

In Pittsburgh Railways enlightened maintenance program, charging equipment is rigged with resistors so that the maximum rate is 35 amperes and the rate is cut to 6 amperes after 8 hours to completion of charge. In use, each battery is protected from heat from the engine in a special insulated and ventilated compartment. Voltage regulation is kept at the lowest charging rate at which the battery will retain a satisfactory charge and maintain the load.

Pittsburgh Railways uses the Willard BWG-4B-117, a battery which has wood and glass insulation; plates that are three times as thick as those in ordinary bus batteries. It has a strong, hard rubber container—features genuine Willard "Safety-Fill" Construction which positively prevents acid spray and dangerous corrosion caused by over-filling. To determine if it is this battery, or one of the other Willard bus types, which will give you the maximum in dependable and economical performance, an experienced battery engineer will make a comprehensive survey of your individual fleet operation. Just write and let us know when you want him to call.

WILLARD STORAGE BATTERY COMPANY

FACTORIES IN: CLEVELAND • LOS ANGELES • DALLAS • MEMPHIS • PORTLAND • ALLENTOWN • TORONTO

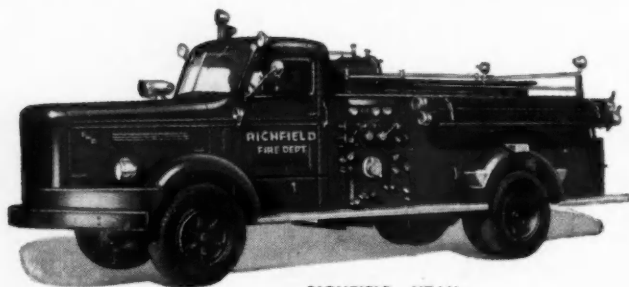
Four more Western communities choose



TOWN OF BASIN, WYOMING



PORTLAND, OREGON



RICHFIELD, UTAH



EAST WENATCHEE, WASHINGTON

Terrific in Traffic!

Flashing, high speed performance demands split-second driver control. Only *true* four-wheel-drive allows you to cut corners close to the curb, whip in and out of traffic, stop on a dime when you need to. FWD's correct balance of weight to power on each axle keeps you *headed* where you *aim*—powered traction holds those front wheels *on* the road, keeps you *out* of skids and spins. Fighting fire is tough enough *without* worrying *whether* truck and crew will get there in *shape* to do it! Don't sacrifice *speed* for *safety*—you can have *both*—consistently, dependably—with FWD Engines. Find out about 'em *now*!



AMERICA'S  SAFEST FIRE-FIGHTING APPARATUS

THE FOUR WHEEL DRIVE AUTO CO., CLINTONVILLE, WIS., Canadian Factory, KITCHENER, ONT.

Ask for your copy of "FWD Fire Engines"; photos and descriptions of FWD equipment carefully chosen by communities all over the country. Let it help you make your choice!



8

GON



GTON



R, ONT.